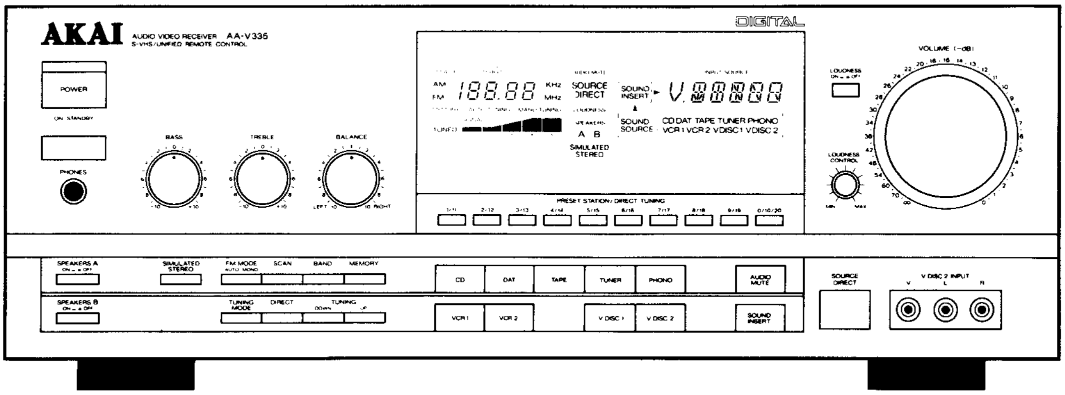
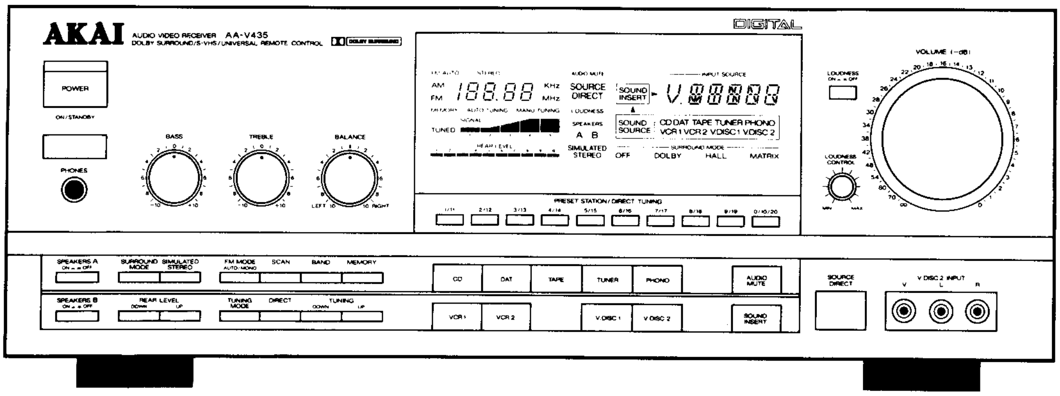
AKAI SERVICE MANUAL



model AA-V335



model AA-V435

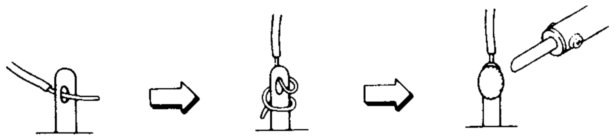
AUDIO VIDEO RECEIVER

MODEL AA-V335
MODEL AA-V435

★SAFETY INSTRUCTIONS

PRECAUTIONS DURING SERVICING

1. Parts identified by the ⚠(*) symbol parts are critical for safety. Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation.
   These must also be replaced only with specified replacements.
   Examples: RF converters, tuner units, antenna selectswitches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape
   2) PVC tubing
   3) Spacers (Insulating Barriers)
   4) Insulation sheets for transistors
   5) Plastic screws for fixing microswitch (especially in turntable)
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



6. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

SAFETY CHECK AFTER SERVICING

After servicing, make measurements of leakage-current or resistance in order to determine that exposed parts are acceptably insulated from the supply circuit.
The leakage-current measurement should be done between accessible metal parts (such as chassis, ground terminal, microphone jacks, signal-input/output connectors, etc.) and the earth ground through a resister of 1500 ohms paralleled with a 0.15 μF capacitor, under the unit's normal working conditions. The leakage-current should be less than 0.5 mA rms AC.
The resistance measurement should be done between accessible exposed metal parts and power cord plug prongs with the power switch (if included) "ON". The resistance should be more than 2.2 Mohms.

★INFORMATION

SYMBOLS FOR PRIMARY DESTINATION

Alphabet indicates the destination of the units as listed below.

Symbols	Principal Destinations
A	USA
B	UK
C	Canada
E	Europe (except UK)
J	Japan
S	Australia
V	W. Germany only
U	Universal Area
Y*	Custom version

I. SPECIFICATIONS

1-1. Model AA-V335

Amplifier section

Power output (per channel)	
by FTC (20Hz to 20kHz)	100W (8 ohms, 0.05%)
Music power output	165W (8 ohms)/330W (4 ohms)/660W (2 ohms)
Power bandwidth	10Hz to 60kHz/0.3%
Total harmonic distortion	0.03% (8 ohms, 1kHz)
Phono max. input level	135mV (MM)
Frequency response	5Hz to 100kHz (+0dB, −4dB)
Tone control	
Treble	±8dB (10kHz)
Bass	±8dB (100Hz)
Input sensitivity/Impedance	
Phono (MM)	2.0mV/47k ohms
CD, Tape, etc.	150mV/47k ohms
V.Disc/VCR (Audio)	150mV/47k ohms
V.Disc/VCR (Video)	1Vp-p/75 ohms
Output level/Impedance	
Tape rec out	150mV/1k ohms
VCR (Audio)	150mV/1k ohms
Monitor/VCR (Video)	1Vp-p/75 ohms
Damping factor	28.7 (8 ohms, 1kHz)
Residual noise	0.5mV (8 ohms)
S/N	
Phono (MM)	70dB
CD, Tape	90dB (Source direct)
Channel separation (IHF)	60dB (1kHz)
Required speaker impedance	
A or B	8 ohms to 16 ohms
A and B	16 ohms

Tuner section

FM Tuner	
Tuning frequency range	87.5MHz to 108.0MHz
Usable sensitivity	11.2dBf
Quieting sensitivity (IHF, S/N=50dB)	16.2dBf (Mono)/37.2dBf (Stereo)
Capture ratio	1.5dB
Selectivity (400kHz)	60dB
Image rejection	85dB
IF rejection	90dB
Spurious rejection	80dB
AM suppression	60dB
S/N (IHF)	75dB (Mono)/65dB (Stereo)
Harmonic distortion	0.1% (Mono)/0.3% (Stereo)
Stereo separation (1kHz)	45dB
Frequency response	30Hz to 15kHz (±0.5dB)
AM Tuner	
Tuning frequency range	530kHz to 1,610kHz
Usable sensitivity (AM Loop antenna)	300µV/m
Selectivity	25dB
Image rejection	45dB
IF rejection	35dB
S/N	40dB
T.H.D.	1.0%
Power requirement	120V, 60Hz
Dimensions	425(W) × 158(H) × 368(D) mm (16.7 × 6.2 × 14.5 inches)
Weight	11.8kg (26.0 lbs)

Standard accessories

FM antenna	1
AM loop antenna	1
FM antenna plug	1
Remote control unit (RC-V335)	1
Batteries for remote control unit (UM-3)	2
Operator's manual	1

1-2. Model AA-V435

Amplifier section

Power output (per channel)	
FTC (20Hz to 20kHz)	125W (8 ohms, 0.05%)
Rear power output	15W (L+R)
Dynamic power output	160W (8 ohms)/200W (6 ohms)/220W (4 ohms), 300W (2 ohms)
Power bandwidth	10Hz to 60kHz/0.3%
Total harmonic distortion	0.03% (8 ohms, 1kHz)
Phono max. input level	135mV (MM)
Frequency response	5Hz to 100kHz (+0dB, −4dB)
Tone control	
Treble	±8dB (10kHz)
Bass	±8dB (100Hz)
Input sensitivity/Impedance	
Phono (MM)	2.0mV/47k ohms
CD, Tape, etc.	150mV/47k ohms
V.Disc/VCR (Audio)	150mV/47k ohms
V.Disc/VCR (Video)	1Vp-p/75 ohms
Output level/Impedance	
Tape rec out	150mV/1k ohms
VCR (Audio)	150mV/1k ohms
Monitor/VCR (Video)	1Vp-p/75 ohms
Damping factor	28.7 (8 ohms, 1kHz)
Residual noise	0.5mV (8 ohms)
S/N	
Phono (MM)	70dB
CD, Tape	90dB (Source direct)
Channel separation (IHF)	60dB (1kHz)
Required speaker impedance	
A or B	8 ohms to 16 ohms
A and B	16 ohms

Tuner section

FM Tuner	
Tuning frequency range	87.5MHz to 108.0MHz
Usable sensitivity	11.2dBf
Quieting sensitivity (IHF, S/N=50dB)	16.2dBf (Mono)/37.2dBf (Stereo)
Capture ratio	1.5dB
Selectivity (400kHz)	60dB
Image rejection	85dB
IF rejection	90dB
Spurious rejection	80dB
AM suppression	60dB
S/N (IHF)	75dB (Mono)/65dB (Stereo)
Harmonic distortion	0.1% (Mono)/0.3% (Stereo)
Stereo separation (1kHz)	45dB
Frequency response	30Hz to 15kHz (±0.5dB)
AM Tuner	
Tuning frequency range	530kHz to 1,610kHz
Usable sensitivity (AM Loop antenna)	300µV/m
Selectivity	25dB
Image rejection	45dB
IF rejection	35dB
S/N	40dB
T.H.D.	1.0%
Power requirement	120V, 60Hz
Dimensions	425(W) × 158(H) × 368(D) mm (16.7 × 6.2 × 14.5 inches)
Weight	12.8kg (28.2 lbs)

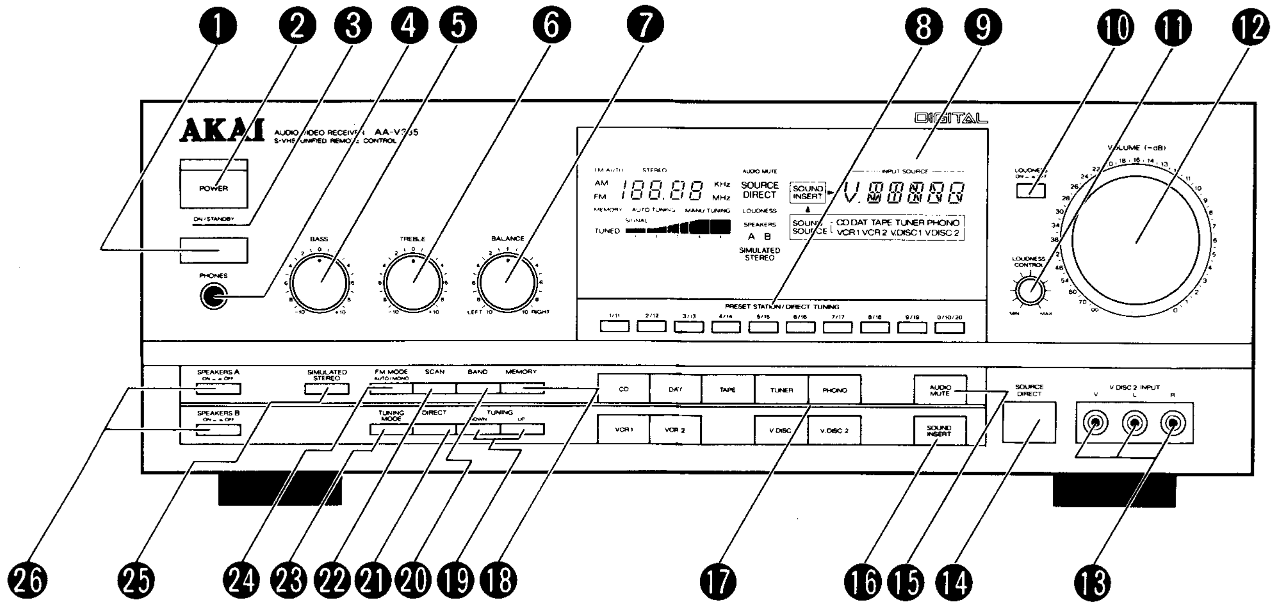
Standard accessories

FM antenna	1
AM loop antenna	1
FM antenna plug	1
Remote control unit (RC-V435)	1
Batteries for remote control unit (UM-4)	4
Operator's manual	1

* For improvement purposes, specifications and design are subject to change without notice.

II. CONTROLS

2-1 Model AA-V335



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⑥
⑦
⑧
⑨
⑩
⑪
⑫
AKAI
POWER
ON/STANDBY
PHONES
BASS
TREBLE
BALANCE
LEFT
RIGHT
DIGITAL
VOLUME (−dB)
LOUDNESS
LOUDNESS CONTROL
PRESET STATION/DIRECT TUNING
SPEAKERS A
SPEAKERS B
SIMULATED STEREO
FM MODE
SCAN
BAND
MEMORY
TUNING MODE
DIRECT
TUNING
CD
DAT
TAPE
TUNER
PHONO
VCR 1
VCR 2
V.DISC
V.DISC 2
AUDIO MUTE
SOUND INSERT
SOURCE DIRECT
V.DISC 2 INPUT
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⑬

① Remote Sensor Window
To receive the remote control signal from the RC-V335 provided remote control unit.
Keep away from strong light and direct sunlight as this may interfere with the remote control function.

② POWER Button and Indicator
To turn the power on and off.
The indicator will light when the power is on.

③ ON/STANDBY Indicator
Tells you the power cord is connected to a household AC outlet.

④ PHONES Jack
For connection of headphones.

⑤ BASS Tone Control
To adjust the low note (bass) level. When set to 0, the control is ineffective.

⑥ TREBLE Tone Control
To adjust the high note (treble) level. When set to 0, the control is ineffective.

⑦ BALANCE Control
To adjust the left and right channel balance.
Normally set the control to 0.

⑧ PRESET STATION/DIRECT TUNING buttons
To memorize and recall FM and AM stations and for direct tuning of stations.

⑨ FL (Fluorescent) Display
Tells you what the receiver is doing.

⑩ LOUDNESS Switch (▬ ON/ ■ OFF)
To turn the loudness system on and off.

⑪ LOUDNESS Control (MIN/MAX)
To increase or decrease the loudness effect.

⑫ VOLUME Control (−dB: minus decibel) and Indicator
To adjust the volume level. The 0 dB (zero decibel) position is the maximum volume output of the receiver.
The indicator will light when the power is turned on.
The surround speaker level can be adjusted at the same time when the surround system is engaged.

⑬ V.DISC 2 Input Jacks (L: Left/R: Right/V: Video)
For connection of video equipment for playback purposes.

⑭ SOURCE DIRECT Switch
To select the playback operation mode. If you wish to use the BASS, TREBLE or BALANCE controls, set the switch to off.

⑮ AUDIO MUTE Button
To instantly reduce the playback volume by 20 dB (1/10) from the level that the VOLUME control is set at.

⑯ SOUND INSERT Button
To turn the sound insert system on and off during video source recording and playback.

⑰ Input Select Buttons (PHONO, TAPE, DAT, TUNER, CD, VCR 1, VCR 2, V.DISC 1, V.DISC 2)
To select the audio or video source you wish to playback.

⑱ MEMORY Button
To store tuned in stations at PRESET STATION button.

⑲ TUNING Control Button (UP/DOWN)
To tune in stations manually or automatically.

⑳ BAND Button
To select between the FM and AM band.

㉑ DIRECT Button
To tune in a stations directly.

㉒ SCAN Button
To start automatic preset station scanning.

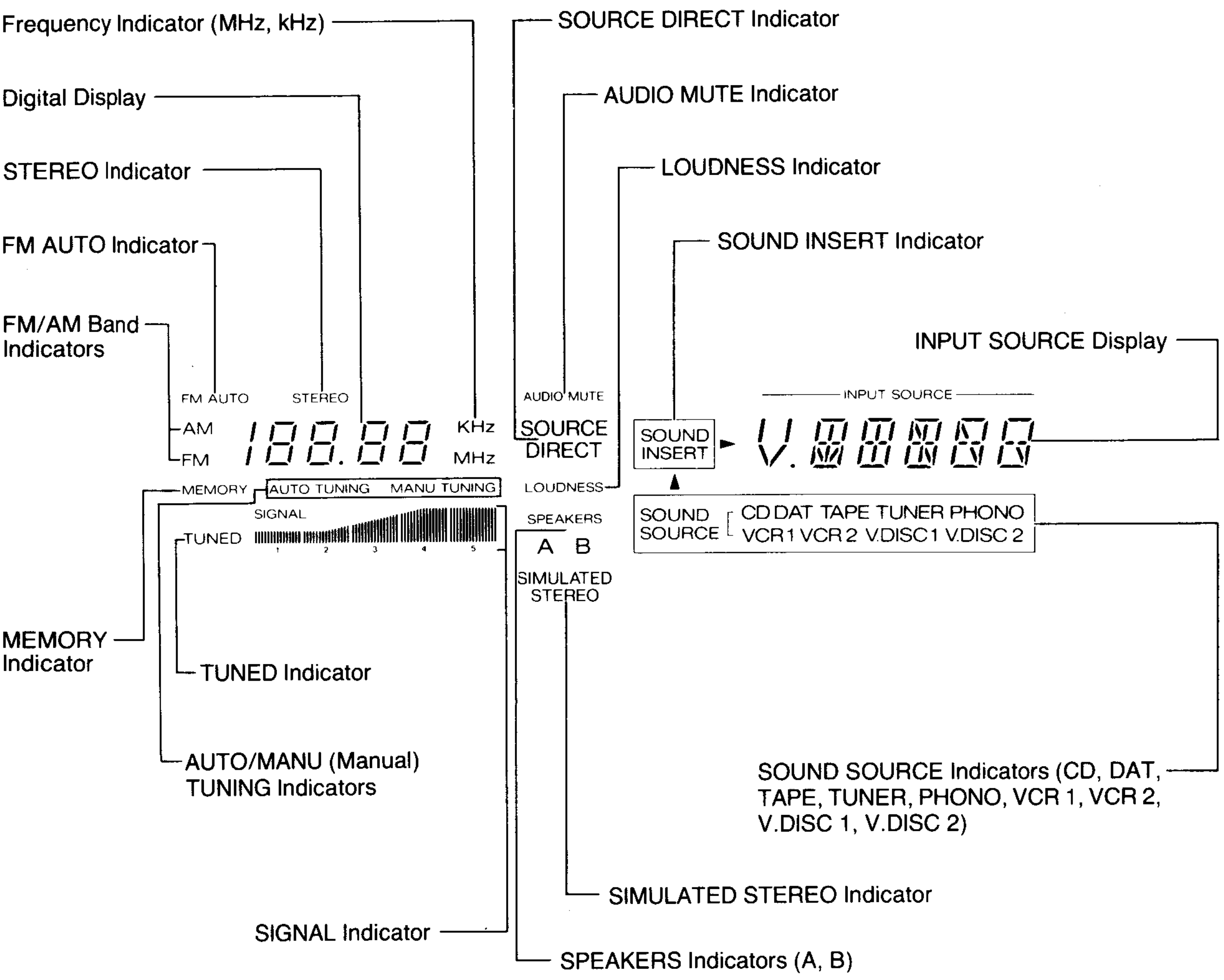
㉓ TUNING MODE Button
To select between the automatic or manual tuning modes.

㉔ FM MODE Button
To select between the stereo and monaural mode during FM reception.

㉕ SIMULATED STEREO Button
To turn the simulated stereo system on and off.

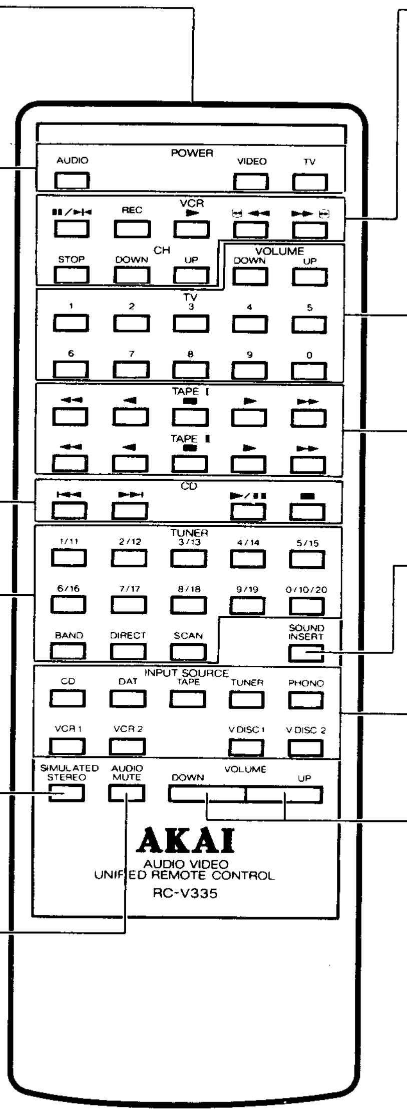
㉖ SPEAKERS A/B Switch (▬ ON/ ■ OFF)
To select the speaker system.
For headphone listening, set both switches to ■. When using two pairs of speaker systems at the same time, set both switches to ▬.

On the FL (Fluorescent) display


Frequency Indicator (MHz, kHz)
Digital Display
STEREO Indicator
FM AUTO Indicator
FM/AM Band Indicators
SOURCE DIRECT Indicator
AUDIO MUTE Indicator
LOUDNESS Indicator
SOUND INSERT Indicator
INPUT SOURCE Display
FM AUTO
STEREO
AM
FM
KHz
MHz
AUDIO MUTE
SOURCE DIRECT
LOUDNESS
INPUT SOURCE
SOUND INSERT
MEMORY
AUTO TUNING
MANU TUNING
SIGNAL
TUNED
1 2 3 4 5
SPEAKERS
A B
SIMULATED STEREO
SOUND SOURCE
CD DAT TAPE TUNER PHONO
VCR 1 VCR 2 V.DISC 1 V.DISC 2
MEMORY Indicator
TUNED Indicator
AUTO/MANU (Manual) TUNING Indicators
SOUND SOURCE Indicators (CD, DAT, TAPE, TUNER, PHONO, VCR 1, VCR 2, V.DISC 1, V.DISC 2)
SIMULATED STEREO Indicator
SIGNAL Indicator
SPEAKERS Indicators (A, B)

REMOTE CONTROL UNIT

The remote control can be used to conveniently control all of the receiver's functions as well as basic control of Akai video cassette recorders and Mitsubishi TVs.


POWER
AUDIO
VIDEO
TV
VCR
▮▮/►|◄
REC
►
◄◄
►►
STOP
CH
DOWN
UP
VOLUME
DOWN
UP
TV
1
2
3
4
5
6
7
8
9
0
TAPE I
◄◄
◄
■
►
►►
TAPE II
◄◄
◄
■
►
►►
CD
|◄◄
►►|
►/▮▮
■
TUNER
1/11
2/12
3/13
4/14
5/15
6/16
7/17
8/18
9/19
0/10/20
BAND
DIRECT
SCAN
SOUND INSERT
INPUT SOURCE
CD
DAT
TAPE
TUNER
PHONO
VCR 1
VCR 2
V DISC 1
V DISC 2
SIMULATED STEREO
AUDIO MUTE
VOLUME
DOWN
UP
AKAI
AUDIO VIDEO
UNIFIED REMOTE CONTROL
RC-V335

Transmitting window

POWER AUDIO Button
To turn the power of the receiver on and off.

POWER VIDEO Button
To turn the power of an Akai video cassette recorder on and off.

POWER TV Button
To turn the power of a Mitsubishi TV on and off.

CD Player Control Buttons
For control of an Akai CD player.

Tuner Control Buttons
For control of the receiver's tuner.

SIMULATED STEREO Button
To turn the simulated stereo system on and off.

AUDIO MUTE Button
To turn the audio mute system on and off.

VCR (Video Cassette Recorder) Control Buttons
For control of an Akai Video cassette recorder.

TV Control Buttons
For control of a Mitsubishi TVs.

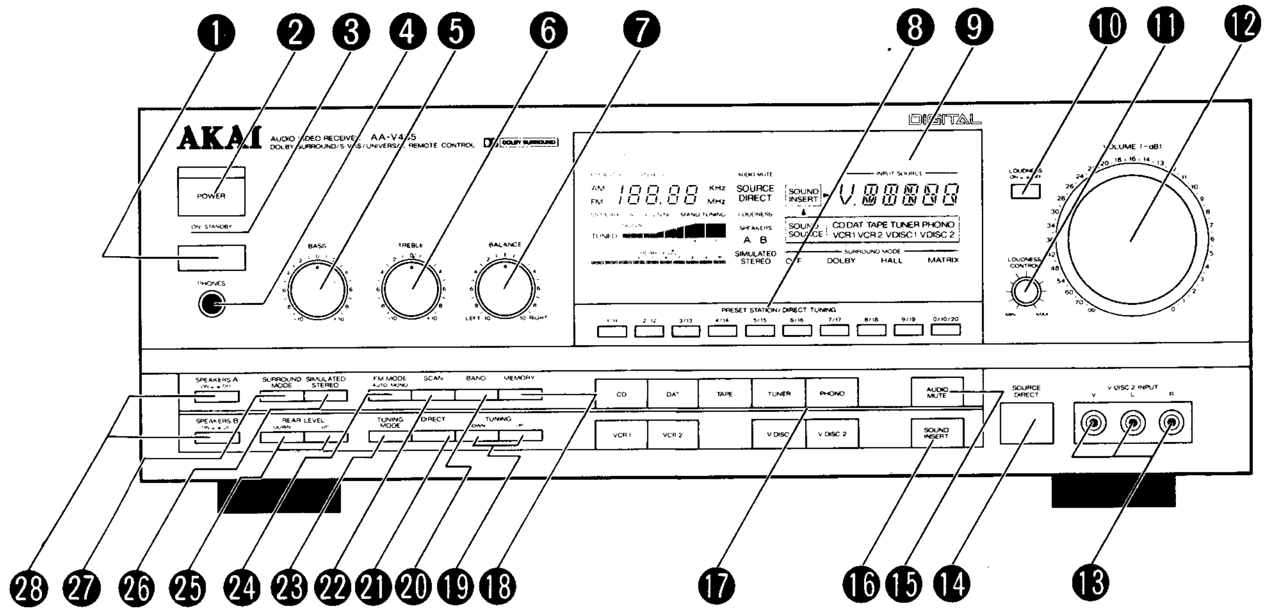
Tape Deck Control Buttons
For control of an Akai cassette deck.

SOUND INSERT Button
To turn the sound insert system on and off.

INPUT SOURCE Select Buttons
To select the audio or video source.

VOLUME Control Buttons (UP/DOWN)
To adjust the playback volume.

2-2 Model AA-V435


1
2
3
4
5
6
7
8
9
10
11
12
AKAI
AA-V435
POWER
ON STANDBY
PHONES
BASS
TREBLE
BALANCE
DIGITAL
SOURCE DIRECT
SOUND INSERT
DOLBY
HALL
MATRIX
SIMULATED STEREO
PRESET STATION/DIRECT TUNING
LOUDNESS
VOLUME (-dB)
SPEAKERS A
SPEAKERS B
SURROUND MODE
SIMULATED STEREO
FM MODE
SCAN
BAND
MEMORY
REAR LEVEL
TUNING MODE
DIRECT
TUNING
CD
DAT
TAPE
TUNER
PHONO
VCR 1
VCR 2
V.DISC
V.DISC 2
AUDIO MUTE
SOUND INSERT
SOURCE DIRECT
V.DISC 2 INPUT
V
L
R
28
27
26
25
24
23
22
21
20
19
18
17
16
15
14
13

① **Remote Sensor Window**
To receive the remote control signal from the RC-V435 provided remote control unit.
Keep away from strong light and direct sunlight as this may interfere with the remote control function.

② **POWER Button and Indicator**
To turn the power on and off.
The indicator will light when the power is on.

③ **ON/STANDBY Indicator**
Tells you the power cord is connected to a household AC outlet.

④ **PHONES Jack**
For connection of headphones.

⑤ **BASS Tone Control**
To adjust the low note (bass) level. When set to 0, the control is ineffective.

⑥ **TREBLE Tone Control**
To adjust the high note (treble) level. When set to 0, the control is ineffective.

⑦ **BALANCE Control**
To adjust the left and right channel balance.
Normally set the control to 0.

⑧ **PRESET STATION/DIRECT TUNING buttons**
To memorize and recall FM and AM stations and for direct tuning of stations.

⑨ **FL (Fluorescent) Display**
Tells you what the receiver is doing.

⑩ **LOUDNESS Switch**
(▬ ON/ ■ OFF)
To turn the loudness system on and off.

⑪ **LOUDNESS Control (MIN/MAX)**
To increase or decrease the loudness effect.

⑫ **VOLUME Control (−dB: minus decibel) and Indicator**
To adjust the volume level. The 0 dB (zero decibel) position is the maximum volume output of the receiver.
The indicator will light when the power is turned on.
The surround speaker level can be adjusted at the same time when the surround system is engaged.

⑬ **V.DISC 2 Input Jacks**
(L: Left/R: Right/V: Video)
For connection of video equipment for playback purposes.

⑭ **SOURCE DIRECT Switch**
To select the playback operation mode. If you wish to use the BASS, TREBLE or BALANCE controls, set the switch to off.

⑮ **AUDIO MUTE Button**
To instantly reduce the playback volume by 20 dB (1/10) from the level that the VOLUME control is set at.

⑯ **SOUND INSERT Button**
To turn the sound insert system on and off during video source recording and playback.

⑰ **Input Select Buttons**
(PHONO, TAPE, DAT, TUNER, CD, VCR 1, VCR 2, V.DISC 1, V.DISC 2)
To select the audio or video source you wish to playback.

⑱ **MEMORY Button**
To store tuned in stations at PRESET STATION button.

⑲ **TUNING Control Button (UP/DOWN)**
To tune in stations manually or automatically.

⑳ **BAND Button**
To select between the FM and AM band.

㉑ **DIRECT Button**
To tune in a stations directly.

㉒ **SCAN Button**
To start automatic preset station scanning.

㉓ **TUNING MODE Button**
To select between the automatic or manual tuning modes.

㉔ **FM MODE Button**
To select between the stereo and monaural mode during FM reception.

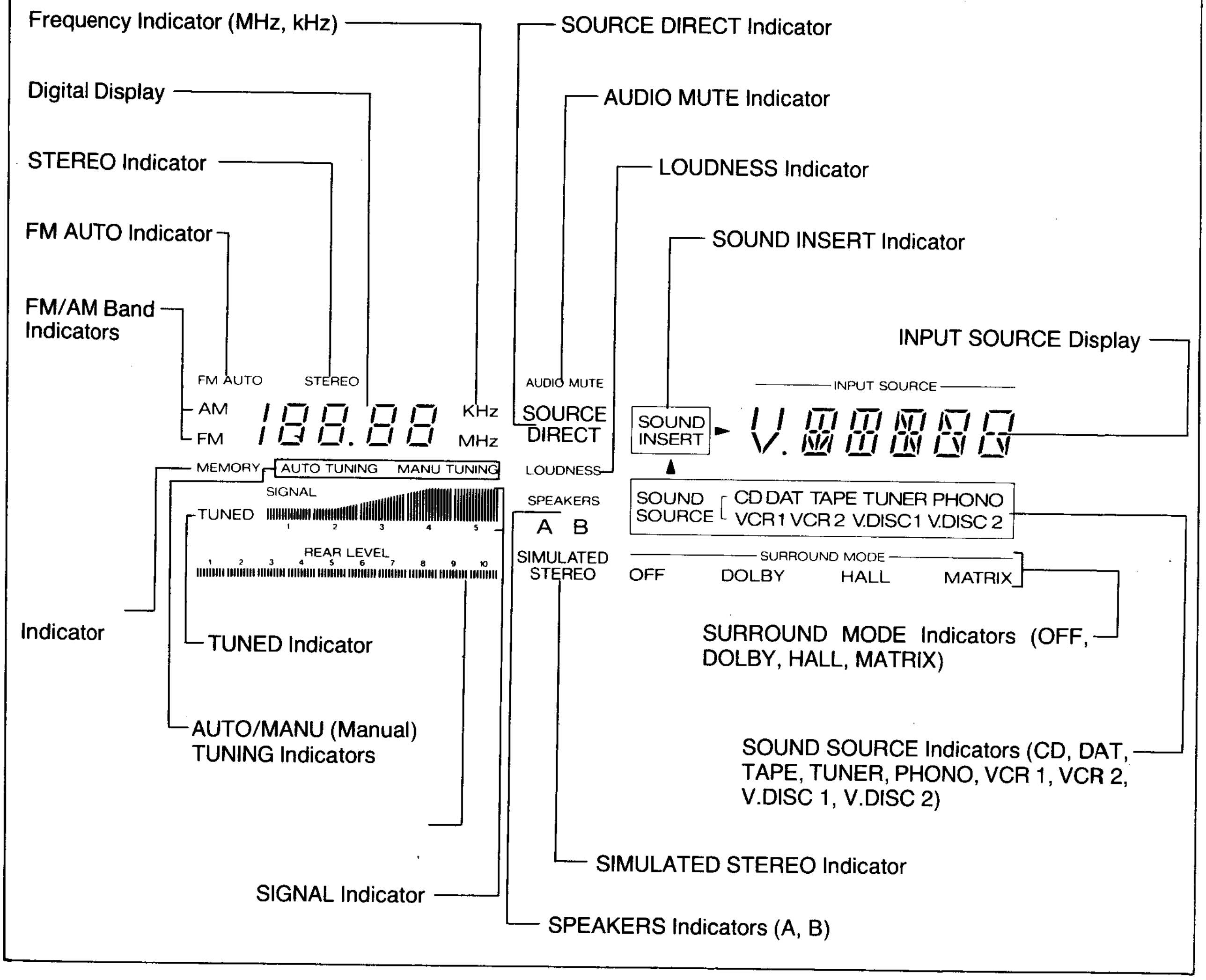
㉕ **REAR LEVEL Control Button (UP/DOWN)**
To adjust the rear surround system playback volume when the surround system is engaged.

㉖ **SIMULATED STEREO Button**
To turn the simulated stereo system on and off.

㉗ **SURROUND MODE Select Button**
To select the surround mode (DOLBY, HALL or MATRIX).

㉘ **SPEAKERS A/B Switch**
(▬ ON/ ■ OFF)
To select the speaker system.
For headphone listening, set both switches to ■. When using two pairs of speaker systems at the same time, set both switches to ▬.

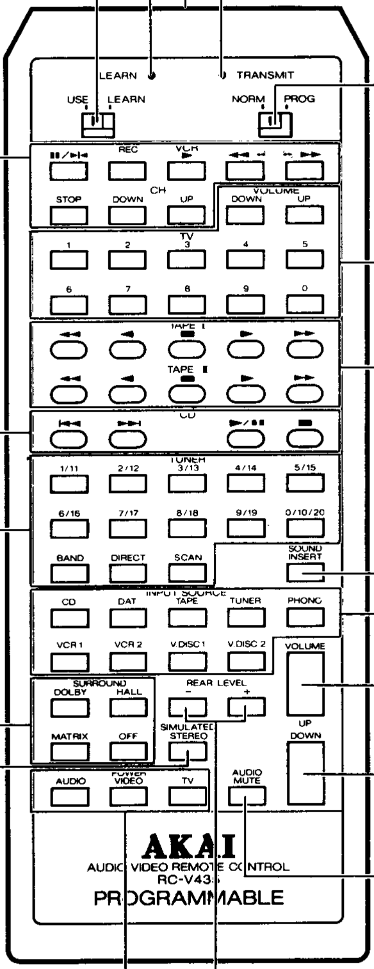
On the FL (Fluorescent) display


Frequency Indicator (MHz, kHz)
Digital Display
STEREO Indicator
FM AUTO Indicator
FM/AM Band Indicators
FM AUTO
STEREO
AM
FM
188.88
KHz
MHz
MEMORY
AUTO TUNING
MANU TUNING
SIGNAL
TUNED
1 2 3 4 5
REAR LEVEL
1 2 3 4 5 6 7 8 9 10
Indicator
TUNED Indicator
AUTO/MANU (Manual) TUNING Indicators
SIGNAL Indicator
SOURCE DIRECT Indicator
AUDIO MUTE Indicator
LOUDNESS Indicator
SOUND INSERT Indicator
INPUT SOURCE Display
AUDIO MUTE
SOURCE DIRECT
LOUDNESS
SPEAKERS
A B
SIMULATED STEREO
INPUT SOURCE
SOUND INSERT
V.
SOUND SOURCE
CD DAT TAPE TUNER PHONO
VCR 1 VCR 2 V.DISC 1 V.DISC 2
SURROUND MODE
OFF
DOLBY
HALL
MATRIX
SURROUND MODE Indicators (OFF, DOLBY, HALL, MATRIX)
SOUND SOURCE Indicators (CD, DAT, TAPE, TUNER, PHONO, VCR 1, VCR 2, V.DISC 1, V.DISC 2)
SIMULATED STEREO Indicator
SPEAKERS Indicators (A, B)

REMOTE CONTROL UNIT

The remote control can be used to conveniently control all of the receiver's functions as well as basic control of Akai video cassette recorders and Mitsubishi TVs.

If you wish to use this remote control to control other components you can transfer their remote control functions to this unit using the programming function.


LEARN
TRANSMIT
USE
LEARN
NORM
PROG
REC
VCR
STOP
DOWN
CH
UP
VOLUME
DOWN
UP
TV
1
2
3
4
5
6
7
8
9
0
TAPE I
TAPE II
CD
TUNER
1/11
2/12
3/13
4/14
5/15
6/16
7/17
8/18
9/19
0/10/20
BAND
DIRECT
SCAN
SOUND INSERT
INPUT SOURCE
CD
DAT
TAPE
TUNER
PHONO
VCR 1
VCR 2
V.DISC 1
V.DISC 2
VOLUME
SURROUND
DOLBY
HALL
MATRIX
OFF
REAR LEVEL
-
+
SIMULATED STEREO
UP
DOWN
POWER
AUDIO
VIDEO
TV
AUDIO MUTE
AKAI
AUDIO VIDEO REMOTE CONTROL
RC-V43
PROGRAMMABLE

LEARN Indicator
Tells you the remote control function is transferred.

USE/LEARN Switch
To set the remote control to it's normal operation mode or to it's remote control function transferring mode.

VCR (Video Cassette Recorder) Control Buttons
For control of an Akai Video cassette recorder.

CD Player Control Buttons
For control of an Akai CD player.

Tuner Control Buttons
For control of the receiver's tuner.

SURROUND Buttons (DOLBY, HALL, MATRIX, OFF)
To select the surround system mode and to turn the surround system on and off.

SIMULATED STEREO Button
To turn the simulated stereo system on and off.

POWER AUDIO Button
To turn the power of the receiver on and off.

POWER VIDEO Button
To turn the power of an Akai video cassette recorder on and off.

POWER TV Button
To turn the power of a Mitsubishi TV on and off.

Transmitting window

TRANSMIT Indicator
Tells you the remote control signals are transmitted.

NORMAL/PROGRAM Switch
To set the remote control's operation mode for control of the receiver or for control of another component using the transferred function signals.

TV Control Buttons
For control of a Mitsubishi TVs.

Tape Deck Control Buttons
For control of an Akai cassette deck.

SOUND INSERT Button
To turn the sound insert system on and off.

INPUT SOURCE Select Buttons
To select the audio or video source.

VOLUME Control Buttons (UP/DOWN)
To adjust the playback volume.

AUDIO MUTE Button
To turn the audio mute system on and off.

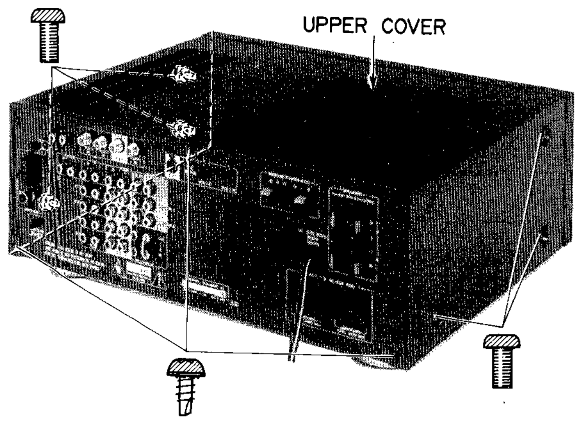
REAR LEVEL Control Button (+: Increase/−: Decrease)
To increase or decrease the rear playback level when the surround system is engaged.

III. DISASSEMBLY

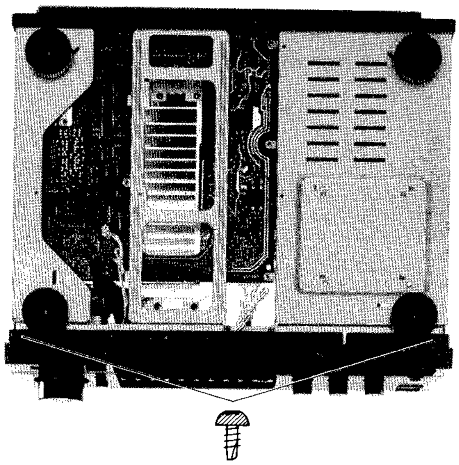
In case of trouble, etc, necessitating dismantling, please dismantle in the order shown in the photographs. Reassemble in reverse order.

* Photographs employed here are of model AA-V435.

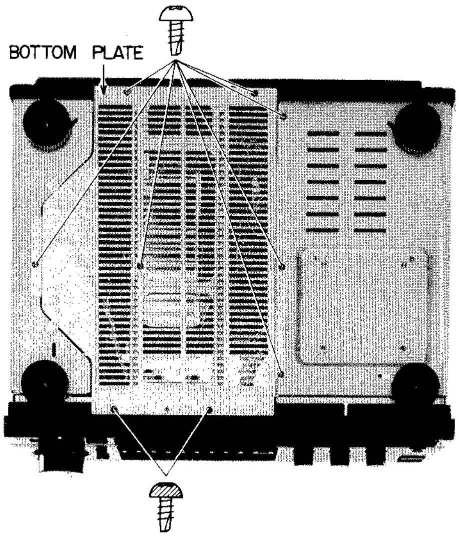
1. Removal of UPPER COVER


UPPER COVER

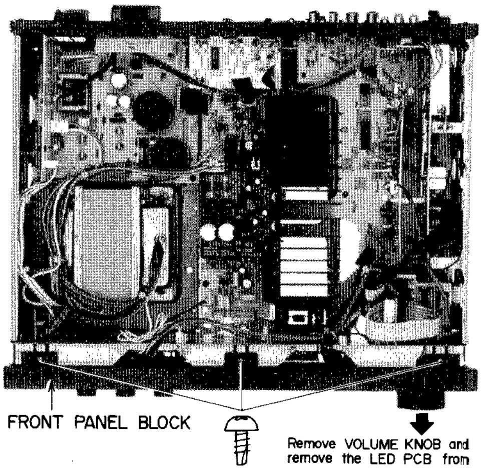
2. Removal of BOTTOM PLATE



3. Removal of FRONT PANEL BLOCK


BOTTOM PLATE

4.


FRONT PANEL BLOCK

Remove VOLUME KNOB and remove the LED PCB from VOLUME KNOB.

IV. PRINCIPAL PARTS LOCATION

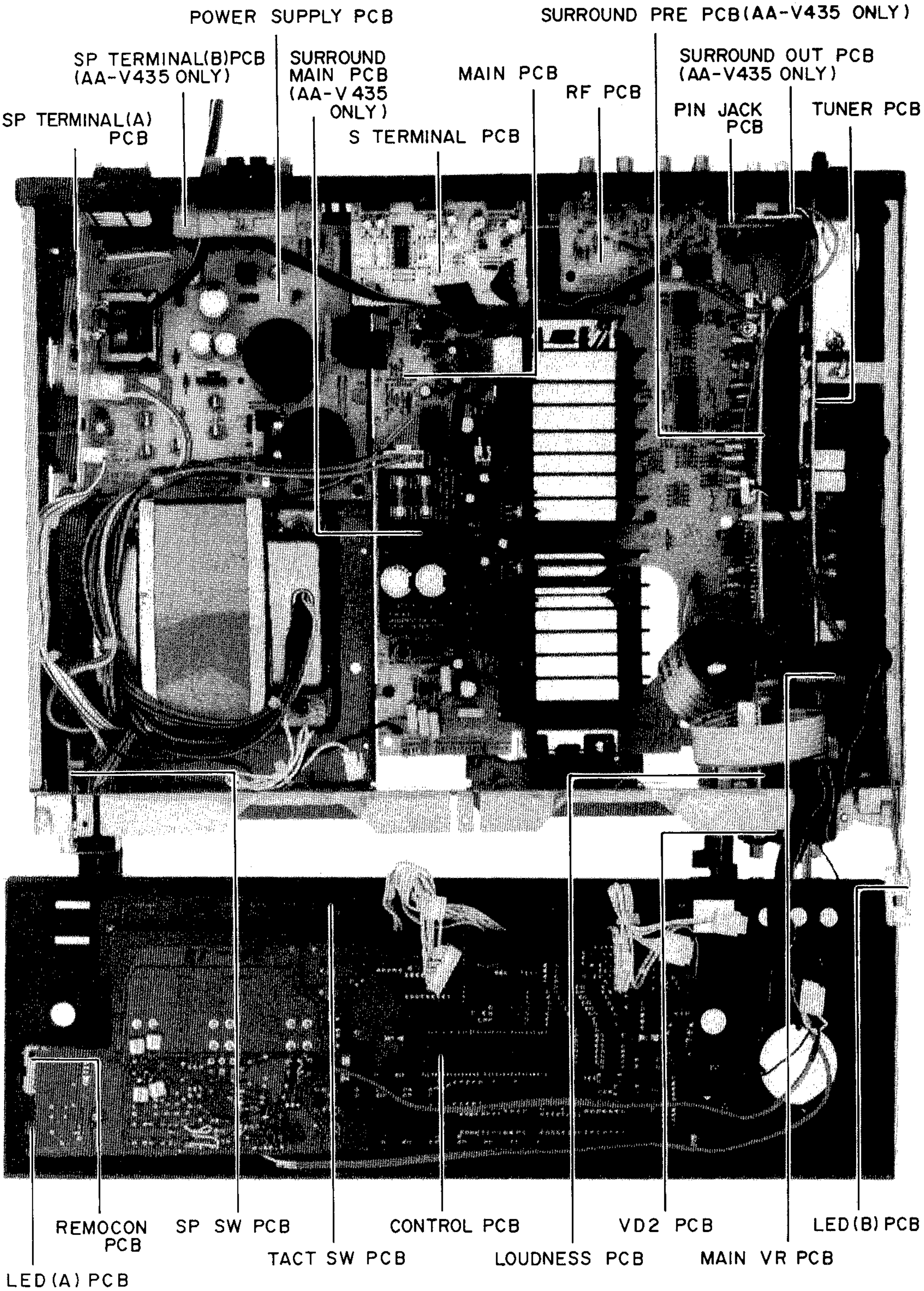

POWER SUPPLY PCB
SURROUND PRE PCB(AA-V435 ONLY)
SP TERMINAL(B)PCB (AA-V435 ONLY)
SURROUND MAIN PCB (AA-V 435 ONLY)
MAIN PCB
RF PCB
SURROUND OUT PCB (AA-V435 ONLY)
SP TERMINAL(A) PCB
S TERMINAL PCB
PIN JACK PCB
TUNER PCB
REMOCON PCB
SP SW PCB
CONTROL PCB
VD2 PCB
LED(B) PCB
TACT SW PCB
LOUDNESS PCB
MAIN VR PCB
LED(A) PCB

Fig. 4-1

V. ELECTRICAL ADJUSTMENT

5-1. INSTRUMENT CONNECTIONS

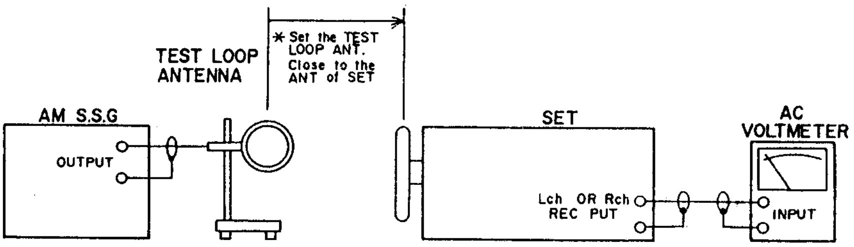

TEST LOOP ANTENNA
* Set the TEST LOOP ANT. Close to the ANT of SET
AM S.S.G
OUTPUT
SET
Lch OR Rch REC PUT
AC VOLTMETER
INPUT

Fig. 5-1. Instrument Connection for AM Section Adjustments

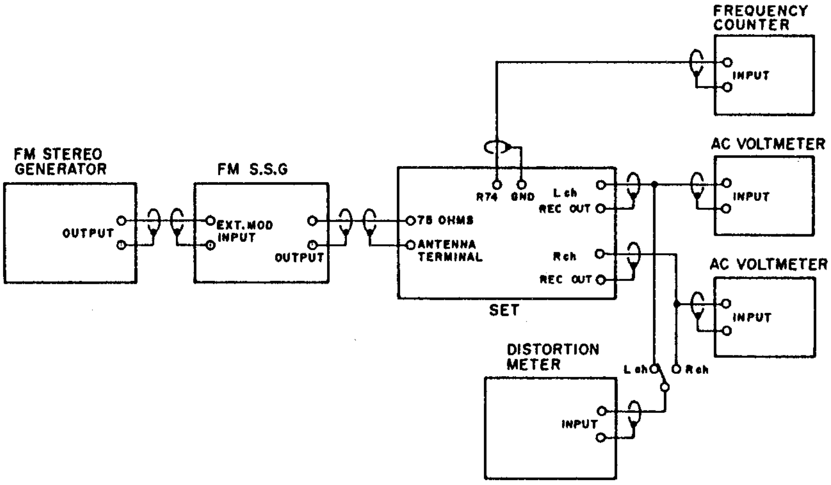

FREQUENCY COUNTER
INPUT
FM STEREO GENERATOR
OUTPUT
FM S.S.G
EXT.MOD INPUT
OUTPUT
R74
GND
Lch REC OUT
75 OHMS
ANTENNA TERMINAL
Rch REC OUT
SET
AC VOLTMETER
INPUT
AC VOLTMETER
INPUT
DISTORTION METER
INPUT
Lch
Rch

Fig. 5-2. Instrument Connection for FM Section Adjustments

5-2. HOW TO RECALL THE PRESET TUNING FREQUENCY FOR ADJUSTMENT

Short the two Jumper Wires JW6 and JW7 on the TUNER PCB momentarily as shown Fig.5-3, then select the required tuning frequency by pushing one of the PRESET STATION button on the FRONT PANEL.

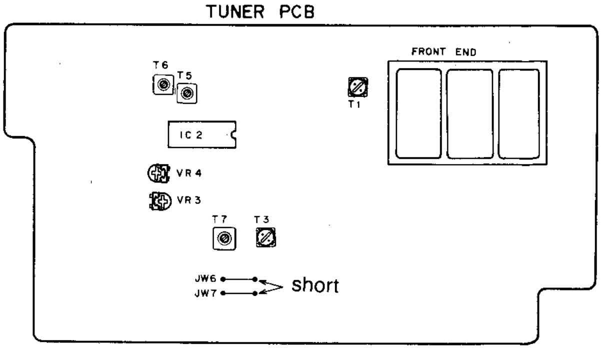

TUNER PCB
FRONT END
T6
T5
T1
IC 2
VR 4
VR 3
T7
T3
JW6
JW7
short
* View from the parts side

Fig. 5-3

* The internal tuning frequency preset memory is set as below.

PRESET STATION	1 ch	2 ch	3 ch	4 ch	5 ch	6 ch	7 ch	8 ch	9 ch	10 ch
TUNING FREQUENCY	FM 88.00MHz	FM 90.00MHz	FM 98.00MHz	FM 100.00MHz	FM 106.00MHz	FM 108.00MHz	FM 95.70MHz	FM 107.70MHz	AM 530kHz	AM 600kHz

PRESET STATION	11 ch	12 ch	13 ch	14 ch	15 ch	16 ch	17 ch	18 ch	19 ch	20 ch
TUNING FREQUENCY	AM 1,000kHz	AM 1,400kHz	AM 800kHz	AM 1,300kHz	AM 1,610kHz	AM 1,1900kHz	FM 92.00MHz	FM 94.00MHz	FM 96.00MHz	FM 102.00MHz

5-3. TUNER ADJUSTMENT

NOTES:
1. Set SSG to 75kH deviation, 1kHz.
2. Confirm that the sensitivity margin between low and high range sensitivities are within 3dBμ, otherwise readjust low and high range sensitivity.

STEP No. | ADJUSTMENT ITEM
1. SSG Freq./Att.
2. Tuning freq.
3. Test point, Adjustment part
4. Remarks (•)/Result (*)

→ Adjustment point

- - → Test point

FM

4 | DISTORTION (MONO)
1. 98MHz (MONO)/60dBμ
2. 98MHz (MONO)
3. REC OUT, T6
4. * Adjust T6 so that the reading on the distortion meter is minimum (less than 0.3%).

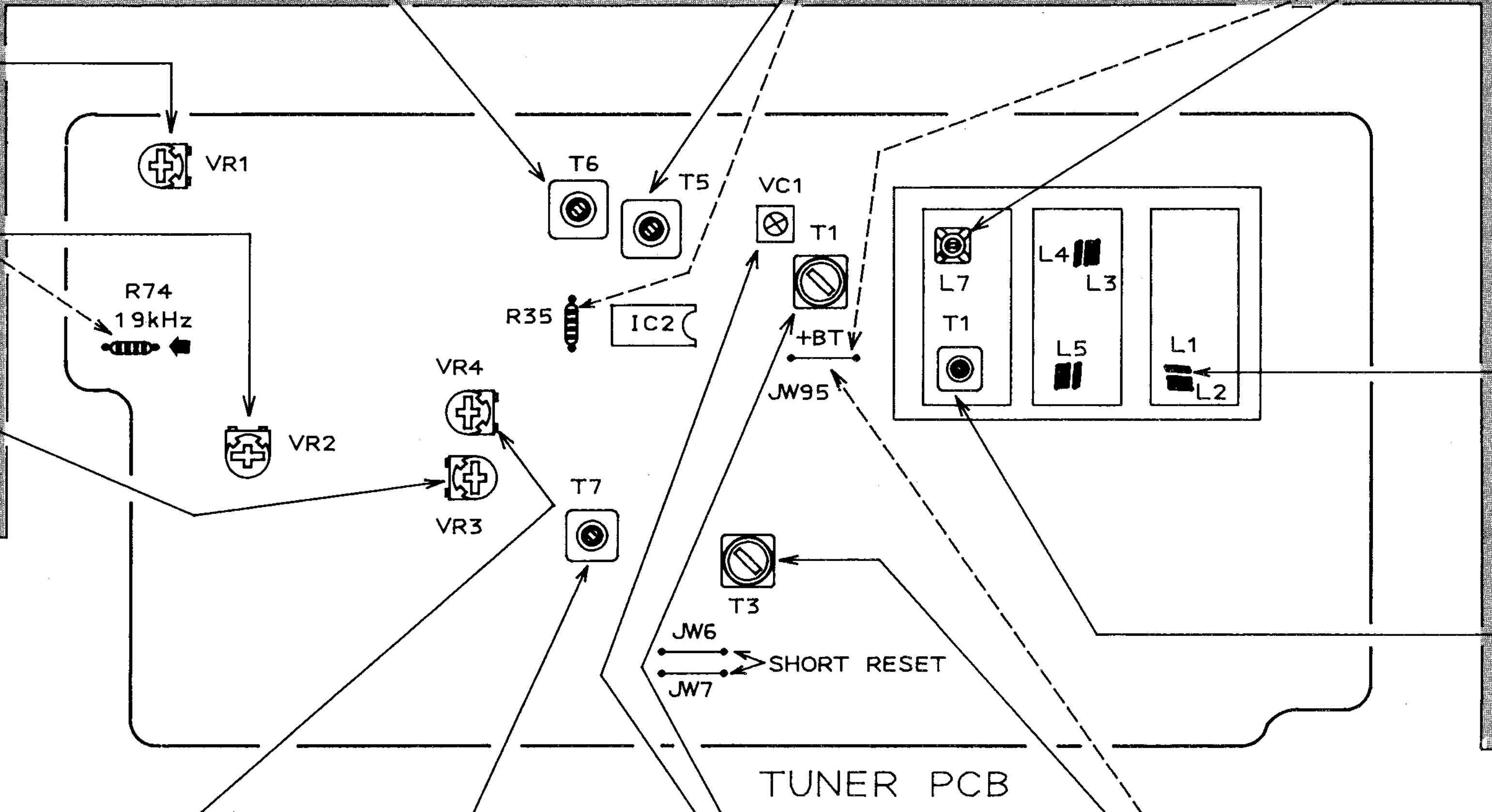
3 | CENTER VOLTAGE
1. –
2. Tune only noise without interference from broadcasting.
3. Both end of R35, T5
4. • Connect a digital DC voltmeter between both end of R35.
   * Adjust T5 so that the reading on the digital DC voltmete is DC 0±0.05V.

1 | TUNING VOLTAGE
1. –
2. 87.5MHz
3. JW95 (+BT), L7
4. • Connect a digital DC voltmeter between JW95 (+BT) and GND.
   * DC 3.50±0.05V

7 | CHANNEL SEPARATION
1. 98MHz (STEREO only "L" or "R" CH)/60dBμ
2. 98MHz (STEREO)
3. REC OUT, VR1
4. * Adjust VR1 so that the level difference between "L" and "R" CH is more than 38dB.

5 | MPX FREE RUN FREQUENCY
1. 98MHz/60dBμ
2. 98MHz (MONO)
3. R74 (marking side), VR2
4. • Connect a frequency counter between R74 (marking side) and GND.
   * 19,000±50Hz

8 | FM SIGNAL INDICATOR SENSITIVITY
1. 98MHz/35dBμ
2. 98MHz
3. SIGNAL INDICATOR on the FRONT PANEL VR3.
4. * Adjust VR3 so that the 5th segment on the signal indicator is light.



2 | FM SENSITIVITY
1. 88MHz, 98MHz, 108MHz/20~10dBμ
2. 88MHz, 98MHz, 108MHz
3. REC OUT, L1 to L5
4. * Adjust L1 to L5 alternately so that the reading on the distortion meter is minimum.

6 | DISTORTION (STEREO)
1. 98MHz (STEREO)/60dBμ
2. 98MHz (STEREO)
3. REC OUT, T1 (FRONT END)
4. * Adust T1 (FRONT END) so that the reading on the distortion meter is minimum (less than 0.8%).

AM

4 | AM SIGNAL INDICATOR SENSITIVITY
1. 1,000kHz/65dBμ
2. 1,000kHz
3. SIGNAL INDICATOR on the FRONT PANEL, VR4
4. * Adjust VR4 so that the 3rd segment on the signal indicator is light.

3 | IF
1. 1,000kHz/74dBμ
2. 1,000kHz
3. REC OUT, T7
4. * Minimum distortion

2 | AM SENSITIVITY
1. 600kHz (Low), 1,400kHz (High)/60dBμ
2. 600kHz (Low)
3. REC OUT, T1 (Low) VC1 (High)
4. * Minimum distortion.
   Note:
   For best result, repeat adjustments at low range and high range two or three times.

1 | TUNING VOLTAGE
1. –
2. 1,400kHz
3. JW95 (+BT), T3
4. • Connect a digital DC voltmeter between JW95 (+BT) and GND.
   * DC 6.7V

NOTES:
1. Set SSG to 30%, 1kHz of each.
2. Confirm that the sensitivity margin between low and high range sensitivities are within 6dBμ, otherwise readjust low and high range sensitivity.

V. PARTS LIST

ATTENTION

1. When placing an order for parts, be sure to list Part No., Model No. and the description of eachpart. Otherwise, the non-delivery of the part or the delivery of a wrong part may result.
2. Please make sure that Part No. is correct when ordering. If not, a part different from the one you ordered may be delivered.
3. Since the parts shown in Parts List of Preliminary Service Manual may have been the subject of changes, please use this Parts List for all future reference.

HOW TO USE THIS PARTS LIST

1. This Parts List lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
2. The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.
4. How to read the Parts List.

a) Mechanism Block

2. HEAD BASE BLOCK

REF. NO.	PART NO.	DESCRIPTION
1	BH-T2023A320A	HEAD BASE BLOCK
2	HP-H2206A010A	HEAD R/P PR4-8FU C
3	ZS-477876	PAN20×03STL CMT
4	ZS-536488	BID20×08STL CMT
5	ZG-402895	SP CS ANGLE ADJUST

SP (Service Parts) Classification

This number corresponds with the individ ual parts index number in that figure.

b) PC Board

6. MAIN PC BOARD

REF. NO.	PART NO.	DESCRIPTION
IC1	EI-324536	IC HD14049BP
IC2	EI-336801	IC MB8841-564M
C1A	EC-338399	C MMY V 223M 250AC [U,E,B,S]
C1B	EC-350949	C MMY V 223M 250DC [J]
C1C	EC-338397	C MMY V 223M 125AC [C,A]
X1	EI-318384	OSC X'TAL NC-18C

Symbols for primary destination

[A] : AAL (U.S.A)	[S] : SAA (Australia)
[B] : BEAB (England)	[U] : U/T (Universa Area)
[C] : CSA (Canada)	
[E] : CEE (Europe)	[V] : VDE (W. Germany)
[J] : JPN (Janan)	[Y] : Custom Version

SP (Service Parts) Classification

These reference symbols correspond with component symbols in the Schematic Diagrams.

The available PC Board Blocks are listed separately.

5. When Part No. is known, Parts Index at end of Parts List can be used to locate where that part is shown in Parts List by its Reference No.listed at right of Part No.

WARNING

⚠(*) INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS.

AVERTISSEMENT

⚠(*) IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉDE L'APPAREIL, NE REMPLACER QUE DES PIÉCES RECOMMANDEES PAR LÉ FABRICANT.

1. RECOMMENDED SPARE PARTS

We suggest you to stock the following Recommended Spare Part items listed below since they can cover most of the routine service.

Ref. No.	Part No.	Description
1	*BT-384245J	TRANS POW A1027-AC [AA-V335]
2	*BT-384246J	TRANS POW A1028-AC [AA-V435]
3	*BT-384281J	TRANS POW A1028S-CA
4	ED-726884J	D IED LN66A
5	ED-376111	D LED SE303AC INFRARED
6	ED-386456J	D LED SLP-144B RED
7	ED-384268J	D LED SLP-175D-50 RED [ON/STANDBY]
8	ED-361885	D LED SLP-384C-51 GREEN [POWER]
9	ED-382358J	D LED SLR34PC 3F K,L,M GREEN [VOLUME INDICATOR]
10	ED-726882J	D PHOTO SPS-503C-3
11	ED-718658	D SILICON CHIP DAN202K
12	ED-718659	D SILICON CHIP DAP202K
13	*ED-330319	D SILICON DBA10B 100/1.0A
14	ED-348990	D SILICON H DS446
15	ED-307572	D SILICON H 1SS131
16	ED-360934	D SILICON H 1SS238
17	ED-624903	D SILICON H 1S2473
18	*ED-384324J	D SILICON RBV402 200/4.0A
19	*ED-384278J	D SILICON RBV602 200/6.0A
20	*ED-370990	D SILICON 1SR35-100AHS F10
21	ED-717990	D SILICON 1SS181
22	ED-349460-A	D VARACTOR SVC321SPA ABCD DBL
23	ED-349448	D VARACTOR 1SV147
24	ED-310387	D ZENER H HZ12 B2
25	ED-330218	D ZENER H HZ15-2L
26	ED-346567	D ZENER H HZ16-1L
27	ED-329051	D ZENER H HZ24 3
28	ED-346594	D ZENER H HZ3 B3
29	ED-346627	D ZENER H HZ33 2
30	ED-338333	D ZENER H HZ5 B2
31	ED-306316	D ZENER H HZ5 C2
32	ED-331197	D ZENER H HZ6 C1
33	ED-337265	D ZENER H HZ6 C2
34	ED-346526	D ZENER H HZ6B1L
35	ED-318859	D ZENER H HZ9 C2
36	*EF-310229	FUSE TSC 125V 1.00A [AA-V335]
37	*EF-309392	FUSE TSC 125V 1.25A [AA-V435]
38	*EF-306954	FUSE TSC 125V 2.00A
39	*EF-346115	FUSE TSC 125V 6.30A [AA-V335]
40	*EF-345658	FUSE TSC 125V 8.00A [AA-V435]
41	EH-344434	FILTER CE BFU450C4N 0.450MHZ
42	EH-355568	FILTER CE SFE10.7MS2G-A
43	EH-370069	FILTER LC LP 42B-1081-00
44	EI-384264J	IC A1027 1271
45	EI-353421	IC BA6229
46	EI-726879J	IC CXK5864M 12L/12 15L/15
47	EI-361624	IC LA1265
48	EI-349591	IC LA2730
49	EI-343417	IC LB1294
50	EI-726881J	IC LC74HC10M
51	EI-384285J	IC LC7821
52	EI-361622	IC LM7001
53	*EI-384279J	IC MC7806CT
54	EI-360227	IC MN3007
55	EI-360228	IC MN3101
56	EI-370973	IC M4066BP
57	EI-726878J	IC M50747-272FP
58	EI-346071	IC M5218L-21
59	EI-349719	IC M5218P
60	EI-344764	IC M5218P-21
61	*EI-384286J	IC STK4044V [AA-V335]
62	*EI-384288J	IC STK4046V [AA-V435]
63	EI-371579	IC S8054ALB
64	EI-310036	IC TC4066BP
65	EI-343371	IC TC9154AP
66	EI-351849	IC UPC1235C
67	EI-354080	IC UPC1237H
68	*EI-384342J	IC UPC1238V
69	EI-726880J	IC UPD4538BG
70	EI-726144J	IC UPD6124G-536
71	EI-376113	OSC CE CSB455EB
72	EI-388110J	OSC CE CST4.19MG 4.194MHZ
73	EI-726885J	OSC CE 8MHZ
74	EI-344422	OSC X'TAL HC-18/U 7.200MHZ
75	*EJ-384277J	SOCKET OUTLET M7037 2P
76	*EJ-384283J	SOCKET OUTLET M7037-B 2X2P
77	EJ-349417	TERMINAL LEVER YKD21-0026 4P [SURROUND SP TERMINAL]
78	EJ-359031	TERMINAL LEVER YKD31-0215 P 2P [ANTENNA TERMINAL]
79	EJ-349061	TERMINAL PUSH YKD21-0025 P 8P [SPEAKER TERMINAL]
80	EM-384263J	IND FL BG-558GK
81	*EQ-385209J	RELAY POW VS-12-MB-NR
82	EQ-382352J	RELAY POW G5R-2282P 2NO 24V
83	*ER-318647	R FUSE H S10 ERD2FC 1/4W 4R7J
84	*ER-356573	R SD ANTI-STATIC 1/2W 225K
85	ES-384302J	SW PUSH ESB-62 06-02 [LOUDNESS SW]
86	ES-383041J	SW PUSH ESB-62931 2-04-02N [SOURCE DIRECT SW]
87	ES-384346J	SW PUSH SPUL23 04-02 2THRPW N [SPEAKER SELECTOR SW]
88	ES-726886J	SW SLIDE SSSS71079A
89	ES-349474	SW TACT SKHHAM004A [1/11]
90	ES-359172	SW TACT SKHHAP [POWER]
91	ES-726887J	SW TACT SKHMPA0001
92	ET-381637J	DETECTOR GP1U521
93	ET-718652	TR CHIP 2SC2412K
94	ET-726883J	TR CHIP 2SD1664
95	ET-363953	TR DTA114TS
96	ET-354415	TR DTA144ES
97	ET-373985	TR DTA144TS
98	ET-360399	TR DTC114TS
99	ET-354371	TR DTC124ES
100	ET-370310	TR DTC144TS
101	ET-354094	TR DTC144WS
102	ET-349449	TR FET 2SK161 O,Y
103	ET-337759	TR FET 2SK246 GR
104	ET-724344J	TR 2SA1037K
105	ET-308472	TR 2SA1115 E,F,G F05
106	ET-353899	TR 2SA1317 S,T,U
107	ET-305463	TR 2SA970 GR,BL
108	*ET-366365	TR 2SB1185 E,F
109	*ET-373210	TR 2SB1187 E,F
110	ET-307195	TR 2SC2240 GR,BL
111	ET-338410	TR 2SC2878 A,B
112	ET-336869	TR 2SC2999 C,D
113	ET-360067	TR 2SC3330 T,U F05
114	ET-349081	TR 2SC3383 S,T
115	ET-357878	TR 2SC3383 S2,T,U
116	ET-356437	TR 2SC930 D2,E,F
117	ET-328265	TR 2SC930 F
118	*ET-366581	TR 2SD1762 E,F
119	ET-721755J	TR 2SD596
120	EV-384318J	VR ROTARY RK09K1110 SPCL W105 [SURROUND BALANCE AA-435]
121	EV-384319J	VR ROTARY RK1631210 A104X2 [LOUDNESS CONTROL]
122	EV-384316J	VR ROTARY RK1631220 B103X2 [BASS]
123	EV-384317J	VR ROTARY RK1631220 M254N254 [BALANCE]
124	EV-384328J	VR SPL RK16Y12MA B104X2 [MAIN VOLUME][AA-V335]
125	EV-384323J	VR SPL RK16313MA M104 B104X2 [MAIN VOLUME][AA-V435]
126	*EZ-358816	BATTERY LITHIUM BR2032-1HF

2. P.C BOARD BLOCK

Ref. No.	Part No.	Description
1A	BA-A1027C020A	PC(#) MAIN BLK AA-V335(A) [A]
1B	BA-A1027C020C	PC(#) MAIN BLK AA-V335(C) [C]
1C	BA-A1027C020B	PC(#) MAIN BLK AA-V435(A) [A]
1D	BA-A1027C020D	PC(#) MAIN BLK AA-V435(C) [C]
2A	BA-A1027C030A	PC(#) TUNER BLK AA-V335
2B	BA-A1027C030B	PC(#) TUNER BLK AA-V435
3	BA-F0141A010F	PC FRONT END BLK FE41(A)
4A	BA-A1027C040A	PC(#) CONTROL BLK AA-V335
4B	BA-A1027C040B	PC(#) CONTROL BLK AA-V435
5	BA-A1028C050A	PC(#) SURROUND BLK AA-V435 [AA-V435]

PC (#) MAIN BLK CONSISTS OF FOLLOWING P.C BOARD.

* MAIN P.C BOARD
* LOUDNESS P.C BOARD
* SPEAKER SW P.C BOARD
* VD2 P.C BOARD
* MAIN VOLUME P.C BOARD

PC (#) TUNER BLK CONSISTS OF FOLLOWING P.C BOARD.

* TUNER P.C BOARD
* PIN JACK P.C BOARD
* S TERMINAL P.C BOARD
* SPEAKER TERMINAL (A) P.C BOARD
* POWER SUPPLY P.C BOARD

PC (#) CONTROL BLK CONSISTS OF FOLLOWING P.C BOARD.

* CONTROL P.C BOARD
* TACT SW P.C BOARD
* REMOCOM P.C BOARD
* LED (A) P.C BOARD

PC (#) SURROUND BLK CONSISTS OF FOLLOWING P.C BOARD.

* SURROUND PRE P.C BOARD
* SURROUND MAIN P.C BOARD

3. MAIN P.C BOARD

Ref. No.	Part No.	Description
C20A	EC-367048	C EC V CUT SME 101M 63.0DC [AA-V335]
C20B	EC-201637	C EC V CUT AS1 101M 80.0DC [AA-V435]
C21A	EC-367048	C EC V CUT SME 101M 63.0DC [AA-V335]
C21B	EC-201637	C EC V CUT AS1 101M 80.0DC [AA-V435]
C25	EC-334005	C EC V CUT NP SM 331M 10DC
D1	ED-338333	D ZENER H HZ5 B2
D2	ED-348990	D SILICON H DS446
D3	ED-348990	D SILICON H DS446
D4	ED-624903	D SILICON H 1S2473
D5	ED-348990	D SILICON H DS446
D6	ED-346627	D ZENER H HZ33 2
D7	ED-346567	D ZENER H HZ16-1L
D8	ED-330218	D ZENER H HZ15-2L
D9	ED-346567	D ZENER H HZ16-1L
D10	ED-310387	D ZENER H HZ12 B2
D11	ED-337265	D ZENER H HZ6 C2
D12	ED-329051	D ZENER H HZ24 3
D13	ED-310387	D ZENER H HZ12 B2
D14	ED-348990	D SILICON H DS446
D15	ED-307572	D SILICON H 1SS131
D16	ED-307572	D SILICON H 1SS131
D17	ED-307572	D SILICON H 1SS131
D18	ED-307572	D SILICON H 1SS131
D19	ED-307572	D SILICON H 1SS131
D20	ED-307572	D SILICON H 1SS131
D21	ED-346594	D ZENER H HZ3 B3
FR1	✱ER-318647	R FUSE H S10 ERD2FC 1/4W 4R7J
FR2	✱ER-318647	R FUSE H S10 ERD2FC 1/4W 4R7J
FR3	✱ER-318647	R FUSE H S10 ERD2FC 1/4W 4R7J
FR4	✱ER-318647	R FUSE H S10 ERD2FC 1/4W 4R7J
FR5	✱ER-318647	R FUSE H S10 ERD2FC 1/4W 4R7J
FR6	✱ER-318647	R FUSE H S10 ERD2FC 1/4W 4R7J
IC1	EI-384285J	IC LC7821
IC2	EI-384285J	IC LC7821
IC3	EI-346071	IC M5218L-21
IC4	EI-346071	IC M5218L-21
IC5	EI-349719	IC M5218P
IC6	EI-349719	IC M5218P
IC7	EI-349719	IC M5218P
IC8	EI-353421	IC BA6229
IC9A	✱EI-384286J	IC STK4044V [AA-V335]
IC9B	✱EI-384288J	IC STK4046V [AA-V435]
IC10	EI-354080	IC UPC1237H
J3	SP-384291J	SOCKET 10N-AQ 10P
J5	SP-384291J	SOCKET 10N-AQ 10P
L1	EO-337880	COIL FIX 2 202AK-018 2R2K
RL1	EQ-382352J	RELAY POW G5R-2282P 2NO 24V
R28	ER-322787	R CB H S10 FS RDS 1/4W 100J
R34	ER-322591	R CB H S10 FS RDS 1/4W 101J
R35	ER-322591	R CB H S10 FS RDS 1/4W 101J
R36	ER-345466	R CT W F09 PLATE 5W R22K [AA-V435]
R37	ER-345466	R CT W F09 PLATE 5W R22K [AA-V435]
R38	ER-345466	R CT W F09 PLATE 5W R22K [AA-V435]
R39	ER-345466	R CT W F09 PLATE 5W R22K [AA-V435]
R40	ER-345466	R CT W F09 PLATE 5W R22K
R45	ER-384296J	R OMF H S15 FS 2W 4R7J
R46	ER-384296J	R OMF H S15 FS 2W 4R7J
R55	ER-384297J	R CB H S12 FS RDS 1/2W 103J
R56	ER-382933J	R OMF H S15 FS 2W 391J
R59	ER-382940J	R OMF H S10 FS 1/2W 182J
R62	ER-382940J	R OMF H S10 FS 1/2W 182J
R64	ER-382940J	R OMF H S10 FS 1/2W 182J
R68	ER-382934J	R OMF H S15 FS 2W 121J
R70	ER-382941J	R OMF H S10 FS 1/2W 392J
TR1	ET-307195	TR 2SC2240 GR,BL
TR2	ET-305463	TR 2SA970 GR,BL
TR3	✱ET-366581	TR 2SD1762 E,F
TR4	✱ET-366581	TR 2SD1762 E,F
TR5	✱ET-366581	TR 2SD1762 E,F
TR6	✱ET-366365	TR 2SB1185 E,F
TR7	✱ET-366581	TR 2SD1762 E,F
TR8	✱ET-373210	TR 2SB1187 E,F
TR9	✱ET-373210	TR 2SB1187 E,F
TR10	ET-308472	TR 2SA1115 E,F,G F05
TR11	ET-308472	TR 2SA1115 E,F,G F05

4. LOUDNESS P.C BOARD

Ref. No.	Part No.	Description
IC101	EI-349719	IC M5218P
R107	ER-322591	R CB H S10 FS RDS 1/4W 101J
R108	ER-322591	R CB H S10 FS RDS 1/4W 101J
SW101	ES-383041J	SW PUSH ESB-62931 2-04-02N [SOURCE DIRECT SW]
SW102	ES-384302J	SW PUSH ESB-62 06-02 [LOUDNESS SW]
TR101	ET-338410	TR 2SC2878 A,B
VR101	EV-384319J	VR ROTARY RK1631210 A104X2 [LOUDNESS CONTROL]

5. SPEAKER SW P.C BOARD

Ref. No.	Part No.	Description
J201	EJ-369995	PHONE J 3P HLJ0540-410 GP 6.3 [PHONES9
R201	ER-371591	R OMF H S15 FS 2W 221J
SW201	ES-384346J	SW PUSH SPUL23 04-02 2THRPW N [SPEAKER SELECTOR SW]

6. VD2 P.C BOARD

Ref. No.	Part No.	Description
J301	EJ-384303J	PIN J JPJ0872-01-111 GP 3P [VD2]
F1A	✱EF-346115	FUSE TSC 125V 6.30A [AA-V335]
F1B	✱EF-345658	FUSE TSC 125V 8.00A [AA-V435]

7. MAIN VOLUME P.C BOARD

Ref. No.	Part No.	Description
VR401	EV-384328J	VR SPL RK16Y12MA B104X2 [MAIN VOLUME][AA-V335]
VR501	EV-384323J	VR SPL RK16313MA M104 B104X2 [MAIN VOLUME][AA-V435]

8. LED (B) P.C BOARD

Ref. No.	Part No.	Description
D601	ED-382358J	D LED SLR34PC 3F K,L,M GREEN [VOLUME INDICATOR]

9. TUNER P.C BOARD

Ref. No.	Part No.	Description
D1	ED-306316	D ZENER H HZ5 C2
D2	ED-307572	D SILICON H 1SS131
D3	ED-318859	D ZENER H HZ9 C2
D4	ED-349460-A	D VARACTOR SVC321SPA ABCD DBL
D5	ED-349460-A	D VARACTOR SVC321SPA ABCD DBL
D8	ED-307572	D SILICON H 1SS131
D10	ED-307572	D SILICON H 1SS131
D11	ED-307572	D SILICON H 1SS131
D12	ED-307572	D SILICON H 1SS131
D13	ED-307572	D SILICON H 1SS131
FL1	EH-355568	FILTER CE SFE10.7MS2G-A
FL2	EH-355568	FILTER CE SFE10.7MS2G-A
FL3	EH-344434	FILTER CE BFU450C4N 0.450MHZ
FL6	EH-370069	FILTER LC LP 42B-1081-00
FL7	EH-370069	FILTER LC LP 42B-1081-00
IC1	EI-361622	IC LM7001
IC2	EI-361624	IC LA1265
IC3	EI-351849	IC UPC1235C
R10	ER-355633	R OMF H S15 FS 1W 331J
R25	ER-306805	R CB H S15 FS RDS 1/2W 101J
R31	ER-327710	R CB H S10 FS RDS 1/4W 151J
R35	ER-333379	R CB H S10 FS RDS 1/4W 183J
R59	ER-327710	R CB H S10 FS RDS 1/4W 151J
TM1	EJ-359031	TERMINAL LEVER YKD31-0215 P 2P [ANTENNA TERMINAL]
TR1	ET-337759	TR FET 2SK246 GR
TR2	ET-349081	TR 2SC3383 S,T
TR3	ET-353899	TR 2SA1317 S,T,U
TR4	ET-353899	TR 2SA1317 S,T,U
TR10	ET-356437	TR 2SC930 D2,E,F
TR13	ET-349081	TR 2SC3383 S,T
TR14	ET-349081	TR 2SC3383 S,T
TR15	ET-354094	TR DTC144WS
TR16	ET-357878	TR 2SC3383 S2,T,U
TR17	ET-357878	TR 2SC3383 S2,T,U
TR18	ET-353899	TR 2SA1317 S,T,U
TR19	ET-360067	TR 2SC3330 T,U F05
T1	EO-337598	COIL VARI 2 25A-1353-01
T3	EO-363279	COIL OSC 2 A7NRS-9857X 150.0UH
T5	EO-363291	COIL DET 2 78-1128-01
T6	EO-361630	COIL DET 2 78-1126-02
T7	EO-353176	COIL IFT PEGK0008B-01 455.0KHZ
T7A	EH-344435	FILTER CE SFU450B9 0.450MHZ
VC1	EC-359065	C S-FIX H CTC-6U-020 4.3-20
VR1	EV-361673	R S-FIX H RH0615C 0.10W 334
VR2	EV-356576	R S-FIX H RH0615C 0.10W 472
VR3	EV-358829	R S-FIX H RH0615C 0.10W 223
VR4	EV-358829	R S-FIX H RH0615C 0.10W 223
VR5	EV-384318J	VR ROTARY RK09K1110 SPCL W105 [SURROUND BALANCE AA-435]
X1	EI-344422	OSC X'TAL HC-18/U 7.200MHZ

10. PIN JACK P.C BOARD

Ref. No.	Part No.	Description
IC101	EI-344764	IC M5218P-21
IC102	EI-370973	IC M4066BP
IC103	EI-370973	IC M4066BP
J101	EJ-384270J	PIN J T6227-AACB 2P [PHONO]
J102	EJ-368244	PIN J T6087 6P [CD,VCR PLAY]
J103	EJ-382362J	PIN J T6027-AABB 4P [DAT,TAPE PLAY]
J104	EJ-368244	PIN J T6087 6P [V.DISC,VCR REC]
J105	EJ-382362J	PIN J T6027-AABB 4P [DAT,TAPE REC]
J106	EJ-384271J	PIN J T6087-AADB 6P [MONITOR OUT]
J107	EJ-382362J	PIN J T6027-AABB 4P [PROCESSOR]
R109	ER-327710	R CB H S10 FS RDS 1/4W 151J
R110	ER-327710	R CB H S10 FS RDS 1/4W 151J
TR101	ET-353899	TR 2SA1317 S,T,U
TR102	ET-353899	TR 2SA1317 S,T,U
TR103	ET-353899	TR 2SA1317 S,T,U
TR104	ET-370310	TR DTC144TS
TR105	ET-370310	TR DTC144TS
TR106	ET-370310	TR DTC144TS

11. S TERMINAL P.C BOARD

Ref. No.	Part No.	Description
D201	ED-307572	D SILICON H 1SS131
D202	ED-307572	D SILICON H 1SS131
D203	ED-307572	D SILICON H 1SS131
IC201	EI-370973	IC M4066BP
J201	EJ-384275J	DIN J TCS7927-14-401 4P [VCR1]
J202	EJ-384275J	DIN J TCS7927-14-401 4P [VCR2]
J203	EJ-384275J	DIN J TCS7927-14-401 4P [OUT]
TR201	ET-353899	TR 2SA1317 S,T,U
TR202	ET-353899	TR 2SA1317 S,T,U
TR203	ET-370310	TR DTC144TS
TR204	ET-370310	TR DTC144TS
TR205	ET-370310	TR DTC144TS
TR206	ET-370310	TR DTC144TS

12. SPEAKER TERMINAL (A) P.C BOARD

Ref. No.	Part No.	Description
TM401	*EJ-384277J	SOCKET OUTLET M7037 2P
TM402	EJ-349061	TERMINAL PUSH YKD21-0025 P 8P [SPEAKER TERMINAL]

13. POWER SUPPLY P.C BOARD

Ref. No.	Part No.	Description
C503	EC-338411	C CE V FZ 103P 400AC
C504	EC-389170J	C MMY V F12 MMHF 473K 400DC
C505A	EC-384320J	C EC V S10 822M 65.0DC [AA-V335]
C505B	EC-384321J	C EC V SNP 103M 72.0DC [AA-V435]
C506A	EC-384320J	C EC V S10 822M 65.0DC [AA-V335]
C506B	EC-384321J	C EC V SNP 103M 72.0DC [AA-V435]
C507	EC-370033	C EC V CUT SME 102M 35.0DC
C508	EC-370033	C EC V CUT SME 102M 35.0DC
C509	EC-383146J	C EC V CUT SME 102M 50.0DC
D501	*ED-330319	D SILICON DBA10B 100/1.0A
D502	*ED-370990	D SILICON 1SR35-100AHS F10
D503	*ED-384278J	D SILICON RBV602 200/6.0A
D504	*ED-330319	D SILICON DBA10B 100/1.0A
D505	*ED-370990	D SILICON 1SR35-100AHS F10
IC501	*EI-384279J	IC MC7806CT
RL501	*EQ-385209J	RELAY POW VS-12-MB-NR
R504	*ER-356573	R SD ANTI-STATIC 1/2W 225K
TM501	*EJ-384283J	SOCKET OUTLET M7037-B 2X2P
TR501	ET-360399	TR DTC114TS
TR502	ET-360067	TR 2SC3330 T,U F05
T501	*BT-384281J	TRANS POW A1028S-CA
F2A	*EF-310229	FUSE TSC 125V 1.00A [AA-V335]
F2B	*EF-309392	FUSE TSC 125V 1.25A [AA-V435]
F3A	*EF-310229	FUSE TSC 125V 1.00A [AA-V335]
F3B	*EF-309392	FUSE TSC 125V 1.25A [AA-V435]
F4A	*EF-309392	FUSE TSC 125V 1.25A [AA-V335]
F4B	*EF-309392	FUSE TSC 125V 1.25A [AA-V435]

14. FRONT END P.C BOARD

Ref. No.	Part No.	Description
D1	ED-349448	D VARACTOR 1SV147
D2	ED-349448	D VARACTOR 1SV147
D3	ED-349448	D VARACTOR 1SV147
D4	ED-349448	D VARACTOR 1SV147
L1	EO-349461	COIL FIX 2 LINK
L2	EO-349462	COIL FIX 2 U147
L3	EO-349461	COIL FIX 2 LINK
L4	EO-349462	COIL FIX 2 U147
L5	EO-349462	COIL FIX 2 U147
L6	EO-359056	COIL FIX 1 LAL03NA 2R2M
L7	EO-353687	COIL OSC 2 E525HN-110003
TR1	ET-349449	TR FET 2SK161 O,Y
TR2	ET-336869	TR 2SC2999 C,D
TR3	ET-328265	TR 2SC930 F
TR4	ET-349449	TR FET 2SK161 O,Y
T1	EO-337640	COIL IFT 119AC-15533X 10.7MHZ

15. CONTROL P.C BOARD

Ref. No.	Part No.	Description
BT1	*EZ-358816	BATTERY LITHIUM BR2032-1HF
D1	ED-307572	D SILICON H 1SS131
D2	ED-307572	D SILICON H 1SS131
D3	ED-307572	D SILICON H 1SS131
D4	ED-307572	D SILICON H 1SS131
D5	ED-307572	D SILICON H 1SS131
D6	ED-307572	D SILICON H 1SS131
D7	ED-624903	D SILICON H 1S2473
D8	ED-624903	D SILICON H 1S2473
D9	ED-624903	D SILICON H 1S2473
D10	ED-624903	D SILICON H 1S2473
D11	ED-624903	D SILICON H 1S2473
D12	ED-624903	D SILICON H 1S2473
D13	ED-624903	D SILICON H 1S2473
D14	ED-624903	D SILICON H 1S2473
D15	ED-624903	D SILICON H 1S2473
D16	ED-624903	D SILICON H 1S2473
D17	ED-307572	D SILICON H 1SS131
D18	ED-624903	D SILICON H 1S2473
D19	ED-624903	D SILICON H 1S2473
D20	ED-624903	D SILICON H 1S2473
D21	ED-624903	D SILICON H 1S2473
D22	ED-624903	D SILICON H 1S2473
D23	ED-624903	D SILICON H 1S2473
D24	ED-624903	D SILICON H 1S2473
D25	ED-624903	D SILICON H 1S2473
D26	ED-624903	D SILICON H 1S2473
D27	ED-331197	D ZENER H HZ6 C1
D31	ED-307572	D SILICON H 1SS131
D32	ED-307572	D SILICON H 1SS131
D33	ED-307572	D SILICON H 1SS131
D34	ED-307572	D SILICON H 1SS131
D35	ED-624903	D SILICON H 1S2473
D36	ED-307572	D SILICON H 1SS131
D37	ED-307572	D SILICON H 1SS131
D38	ED-307572	D SILICON H 1SS131
D39	ED-307572	D SILICON H 1SS131
D40	ED-624903	D SILICON H 1S2473
D41	ED-624903	D SILICON H 1S2473
D42	ED-624903	D SILICON H 1S2473
FL1	EM-384263J	IND FL BG-558GK
IB1	EH-383096J	COMP R RGLD6X472J
IB2	EH-354954	COMP R RGLD4X472J
IB3	EH-383097J	COMP R RGLD10X472J
IC1	EI-384264J	IC A1027 1271
IC2	EI-343417	IC LB1294
IC3	EI-343417	IC LB1294
IC4	EI-349719	IC M5218P
IC5	EI-349719	IC M5218P
P1	EJ-382690J	PLUG 174075-5 5P
P2	EJ-382690J	PLUG 174075-5 5P
P3	EJ-382690J	PLUG 174075-5 5P
P4	EJ-384267J	PLUG 174711-5 5P
R18	ER-322591	R CB H S10 FS RDS 1/4W 101J
R19	ER-322591	R CB H S10 FS RDS 1/4W 101J
TS101	ES-359172	SW TACT SKHHAP [POWER]
TR1	ET-363953	TR DTA114TS
TR2	ET-363953	TR DTA114TS
TR3	ET-354415	TR DTA144ES
TR4	ET-373985	TR DTA144TS
TR5	ET-373985	TR DTA144TS
TR6	ET-373985	TR DTA144TS
TR7	ET-373985	TR DTA144TS
TR8	ET-354371	TR DTC124ES
TR9	ET-360399	TR DTC114TS
VR1	EV-384316J	VR ROTARY RK1631220 B103X2 [BASS]
VR2	EV-384316J	VR ROTARY RK1631220 B103X2 [TREBLE]
VR3	EV-384317J	VR ROTARY RK1631220 M254N254 [BALANCE]
X1	EI-388110J	OSC CE CST4.19MG 4.194MHZ

16. TACT SW P.C BOARD

Ref. No.	Part No.	Description
TS1	ES-349474	SW TACT SKHHAM004A [1/11]
TS2	ES-349474	SW TACT SKHHAM004A [2/12]
TS3	ES-349474	SW TACT SKHHAM004A [3/13]
TS4	ES-349474	SW TACT SKHHAM004A [4/14]
TS5	ES-349474	SW TACT SKHHAM004A [5/15]
TS6	ES-349474	SW TACT SKHHAM004A [6/16]
TS7	ES-349474	SW TACT SKHHAM004A [7/17]
TS8	ES-349474	SW TACT SKHHAM004A [8/18]
TS9	ES-349474	SW TACT SKHHAM004A [9/19]
TS10	ES-349474	SW TACT SKHHAM004A [0/10/20]
TS11	ES-349474	SW TACT SKHHAM004A [REAR LEVEL UP][AA-V435]
TS12	ES-349474	SW TACT SKHHAM004A [REAR LEVEL DOWN][AA-V435
TS13	ES-349474	SW TACT SKHHAM004A [SIMULATION ON/OFF]
TS14	ES-349474	SW TACT SKHHAM004A [SURROUND MODE][AA-V435]
TS15	ES-349474	SW TACT SKHHAM004A [VCR1]
TS16	ES-349474	SW TACT SKHHAM004A [TUNING UP]
TS17	ES-349474	SW TACT SKHHAM004A [TUNING DOWN]
TS18	ES-349474	SW TACT SKHHAM004A [DIRECT]
TS19	ES-349474	SW TACT SKHHAM004A [TUNING MODE]
TS20	ES-349474	SW TACT SKHHAM004A [V.DISC 2 CAMCORDER]
TS21	ES-349474	SW TACT SKHHAM004A [V.DISC 1 TV]
TS22	ES-349474	SW TACT SKHHAM004A [VCR2]
TS23	ES-349474	SW TACT SKHHAM004A [SOUND INSERT]
TS24	ES-349474	SW TACT SKHHAM004A [CD]
TS25	ES-349474	SW TACT SKHHAM004A [MEMORY]
TS26	ES-349474	SW TACT SKHHAM004A [BAND]
TS27	ES-349474	SW TACT SKHHAM004A [SCAN]
TS28	ES-349474	SW TACT SKHHAM004A [FM MODE AUTO/MONO]
TS29	ES-349474	SW TACT SKHHAM004A [PHONO]
TS30	ES-349474	SW TACT SKHHAM004A [TUNER]
TS31	ES-349474	SW TACT SKHHAM004A [TAPE]
TS32	ES-349474	SW TACT SKHHAM004A [DAT]
TS33	ES-349474	SW TACT SKHHAM004A [AUDIO MUTE]

17. REMOCON P.C BOARD

Ref. No.	Part No.	Description
D52	ED-384268J	D LED SLP-175D-50 RED [ON/STANDBY]
PH1	ET-381637J	DETECTOR GP1U521

18. LED (A) P.C BOARD

Ref. No.	Part No.	Description
D50	ED-361885	D LED SLP-384C-51 GREEN [POWER]
D51	ED-361885	D LED SLP-384C-51 GREEN [POWER]

19. SURROUND PRE P.C BOARD (AA-V435)

Ref. No.	Part No.	Description
D1	ED-346526	D ZENER H HZ6B1L
D2	ED-346526	D ZENER H HZ6B1L
D3	ED-307572	D SILICON H 1SS131
D4	ED-307572	D SILICON H 1SS131
IC1	EI-349719	IC M5218P
IC2	EI-349719	IC M5218P
IC3	EI-349719	IC M5218P
IC4	EI-349719	IC M5218P
IC5	EI-349719	IC M5218P
IC6	EI-360227	IC MN3007
IC7	EI-360228	IC MN3101
IC8	EI-349591	IC LA2730
IC9	EI-349719	IC M5218P
IC10	EI-310036	IC TC4066BP
IC11	EI-349719	IC M5218P
IC12	EI-343371	IC TC9154AP
R17	ER-384341J	R CB H S12 FS RDS 1/2W 181J
TR1	ET-370310	TR DTC144TS
TR2	ET-370310	TR DTC144TS
TR3	ET-370310	TR DTC144TS
TR4	ET-370310	TR DTC144TS
TR5	ET-349081	TR 2SC3383 S,T
VR1	EV-352088	R S-FIX V RVF8W01 0.10W 103

20. SURROUND MAIN P.C BOARD (AA-V435)

Ref. No.	Part No.	Description
C106	EC-326583	C MMY V CUT CF921 473K 400DC
C107	EC-324662	C EC V CUT AS1 222M 25.0DC
C108	EC-324662	C EC V CUT AS1 222M 25.0DC
D101	*ED-384324J	D SILICON RBV402 200/4.0A
IC101	*EI-384342J	IC UPC1238V
F5	*EF-306954	FUSE TSC 125V 2.00A
F6	*EF-306954	FUSE TSC 125V 2.00A

21. SPEAKER TERMINAL (B) P.C BOARD (AA-V435)

Ref. No.	Part No.	Description
TM1	EJ-349417	TERMINAL LEVER YKD21-0026 4P [SURROUND SP TERMINAL]

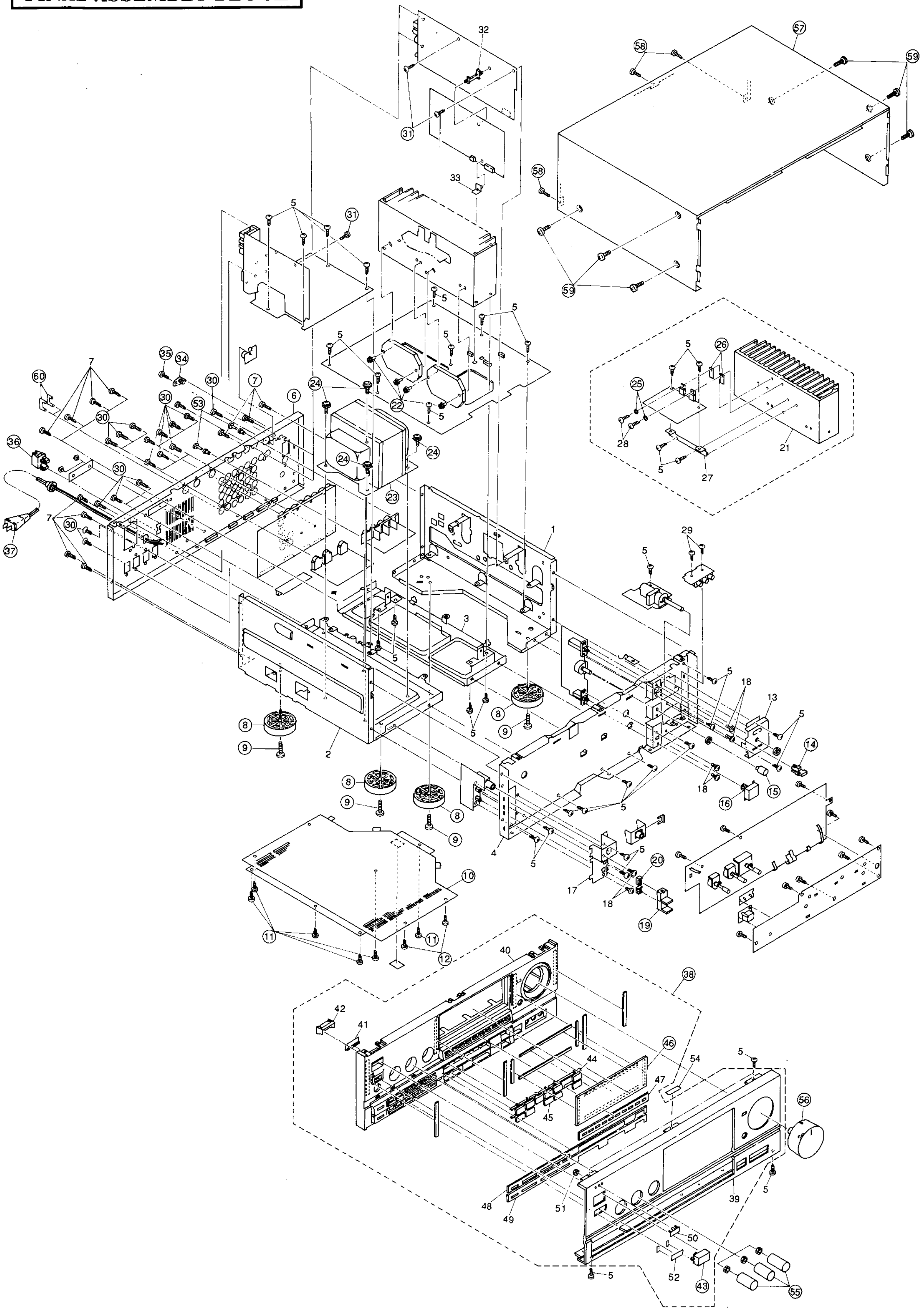
22. SURROUND OUT P.C BOARD (AA-V435)

Ref. No.	Part No.	Description
J201	EJ-384270J	PIN J T6227-AACB 2P [SURROUND OUT]

23. RF SWITCH P.CBOARD

Ref. No.	Part No.	Description
D1	ED-307572	D SILICON H 1SS131
D2	ED-307572	D SILICON H 1SS131
D3	ED-307572	D SILICON H 1SS131
D4	ED-307572	D SILICON H 1SS131
D5	ED-307572	D SILICON H 1SS131
D6	ED-307572	D SILICON H 1SS131
D7	ED-360934	D SILICON H 1SS238
D8	ED-360934	D SILICON H 1SS238
D9	ED-360934	D SILICON H 1SS238
D10	ED-360934	D SILICON H 1SS238
D11	ED-360934	D SILICON H 1SS238
D12	ED-360934	D SILICON H 1SS238
D13	ED-360934	D SILICON H 1SS238
D14	ED-360934	D SILICON H 1SS238
D15	ED-360934	D SILICON H 1SS238
D16	ED-307572	D SILICON H 1SS131
D17	ED-307572	D SILICON H 1SS131
D18	ED-307572	D SILICON H 1SS131
TM1	EJ-366338	JACK PLATE F CONNECTOR 4P [RF IN, V.DISC IN]

FINAL ASSEMBLY BLOCK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24. FINAL ASSEMBLY BLOCK

Ref. No.	Part No.	Description
5	ZS-447840	T2BR30X08STL CMT
6A	SP-384220J1	PANEL REAR AA-V335(A,C) [AA-V335]
6B	SP-384222J1	PANEL REAR AA-V435(A,C) [AA-V435]
7	ZS-308846	T2BR30X08STL BZN PROJECTION
8	SA-384105J	FOOT ROUND SHAPED(N)
9	ZS-304021	ST BID40X12STL CMT
10	SP-384219J	BOTTOM PLATE
11	ZS-447840	T2BR30X08STL CMT
12	ZS-463353	T2BR30X08STL BNI
14	SK-384004J	KNOB PUSH
15	SK-384005J	KNOB VR
16	SK-384007J	KNOB DIRECT
18	ZS-422076	PAN30X05STL CMT
19	SK-384023J	KNOB SP
20	ZW-368205	FLEXIBLE RING 2414-0-0-086-01
22	ZS-384345J	+6T2 30X20STL CMT C070
23A	*BT-384245J	TRANS POW A1027-AC [AA-V335]
23B	*BT-384246J	TRANS POW A1028-AC [AA-V435]
24	ZS-346742	ST BID40X08STL CMT CUP
25	ZW-632226	WASHER INSULATOR (BUSH M)
26	EZ-384327J	TR ACCE INSU. TC20AG-AV TO220
28	ZS-523664	T2BR30X10STL CMT
29	ZS-336351	T2BR30X08STL NI3
30	ZS-350934	PT BR30X08STL BNI
31	ZW-698308	RV NYL30X055 BL
34	EJ-329610	TERMINAL W/SCREW UB-0067 L 1P
35	ZS-308846	T2BR30X08STL BZN PROJECTION
36	SZ-362273	HOLDER ANTENNA (2)
37	*EW-363827	AC CORD200 KP10WSPT2HB100 A UC
38A	BD-A1027C060A	PANEL FRONT BLK AA-V335-B
38B	BD-A1027C060B	PANEL FRONT BLK AA-V435-B
43	SK-384021J	KNOB POW B
46	SE-384011J1	IND PLATE
50	SM-365756C	NAME PLATE AKAI(2)
51	ZW-653163	RING CS 280STL PKR
53	ZW-231030	RV NYL30X045 BL
55	SK-375362	KNOB BALANCE
56	SK-381022J1	KNOB VR A PART
57	SP-373246B	COVER UPPER-BLACK
58	ZS-308846	T2BR30X08STL BZN PROJECTION
59	ZS-341960	ST BID40X06STL BNI
60	EJ-369015	PLUG SHORT-PIN CNT31-0057

NOTE:
Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

25. ACCESSORY

Ref. No.	Part No.	Description
1A	AX-384258J	REMOCON RC-V335
1B	AX-384259J	REMOCON RC-V435
2	EJ-352118	SOCKET COAX PAL B2-714P-900
3	EE-359265	ANT LOOP LA-200A-A
4	EE-381076J	ANT DIPOLE (FM)

26. REMOCON RC-V335

Ref. No.	Part No.	Description
D1	ED-376111	D LED SE303AC INFRARED
D2	ED-717990	D SILICON 1SS181
D3	ED-717990	D SILICON 1SS181
D4	ED-717990	D SILICON 1SS181
D5	ED-717990	D SILICON 1SS181
IC1	EI-726144J	IC UPD6124G-536
Q1	ET-721755J	TR 2SD596
Z1	EI-376113	OSC CE CSB455EB
1	SC-726125J	CASE BATTERY RC-V235/335

27. REMOCON RC-435

Ref. No.	Part No.	Description
D1	ED-718658	D SILICON CHIP DAN202K
D2	ED-718658	D SILICON CHIP DAN202K
D3	ED-718659	D SILICON CHIP DAP202K
D4	ED-718659	D SILICON CHIP DAP202K
D5	ED-718659	D SILICON CHIP DAP202K
D6	ED-718659	D SILICON CHIP DAP202K
D7	ED-718658	D SILICON CHIP DAN202K
D8	ED-718658	D SILICON CHIP DAN202K
D9	ED-718658	D SILICON CHIP DAN202K
D10	ED-718658	D SILICON CHIP DAN202K
D11	ED-718658	D SILICON CHIP DAN202K
D12	ED-718658	D SILICON CHIP DAN202K
D13	ED-718658	D SILICON CHIP DAN202K
D14	ED-718658	D SILICON CHIP DAN202K
D15	ED-718658	D SILICON CHIP DAN202K
D16	ED-718658	D SILICON CHIP DAN202K
D17	ED-718658	D SILICON CHIP DAN202K
IC1	EI-726878J	IC M50747-272FP
IC2	EI-726879J	IC CXK5864M 12L/12 15L/15
IC3	EI-726880J	IC UPD4538BG
IC4	EI-726881J	IC LC74HC10M
IC5	EI-371579	IC S8054ALB
IED1	ED-726884J	D IED LN66A
IED2	ED-726884J	D IED LN66A
LED1	ED-386456J	D LED SLP-144B RED
LED2	ED-386456J	D LED SLP-144B RED
PH1	ED-726882J	D PHOTO SPS-503C-3
Q1	ET-718652	TR CHIP 2SC2412K
Q2	ET-718652	TR CHIP 2SC2412K
Q3	ET-726883J	TR CHIP 2SD1664
Q4	ET-724344J	TR 2SA1037K
S1	ES-726886J	SW SLIDE SSSS71079A
S2	ES-726886J	SW SLIDE SSSS71079A
S3	ES-726887J	SW TACT SKHMPA0001
X1	EI-726885J	OSC CE 8MHZ
1	SA-726889J	FOOT RUBBER
2	SK-726890J	KNOB SLIDE
3	SC-726888J	COVER BATTERY SBFA06R01A

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AX-384259J	25-1B	ED-307572	23-D18	ED-624903	15-D14	EI-343417	15-IC3
BA-A1027C020A	2-1A	ED-310387	1-24	ED-624903	15-D15	EI-344422	1-74
BA-A1027C020B	2-1C	ED-310387	3-D10	ED-624903	15-D16	EI-344422	9-X1
BA-A1027C020C	2-1B	ED-310387	3-D13	ED-624903	15-D18	EI-344764	1-60
BA-A1027C020D	2-1D	ED-318859	1-35	ED-624903	15-D19	EI-344764	10-IC101
BA-A1027C030A	2-2A	ED-318859	9-D3	ED-624903	15-D20	EI-346071	1-58
BA-A1027C030B	2-2B	ED-329051	1-27	ED-624903	15-D21	EI-346071	3-IC3
BA-A1027C040A	2-4A	ED-329051	3-D12	ED-624903	15-D22	EI-346071	3-IC4
BA-A1027C040B	2-4B	ED-330218	1-25	ED-624903	15-D23	EI-349591	1-48
BA-A1028C050A	2-5	ED-330218	3-D8	ED-624903	15-D24	EI-349591	19-IC8
BA-F0141A010F	2-3	ED-330319	1-13	ED-624903	15-D25	EI-349719	1-59
BD-A1027C060A	24-38A	ED-330319	13-D501	ED-624903	15-D26	EI-349719	3-IC5
BD-A1027C060B	24-38B	ED-330319	13-D504	ED-624903	15-D35	EI-349719	3-IC6
BT-384245J	1-1	ED-331197	1-32	ED-624903	15-D40	EI-349719	3-IC7
BT-384245J	24-23A	ED-331197	15-D27	ED-624903	15-D41	EI-349719	4-IC101
BT-384246J	1-2	ED-337265	1-33	ED-624903	15-D42	EI-349719	15-IC4
BT-384246J	24-23B	ED-337265	3-D11	ED-717990	1-21	EI-349719	15-IC5
BT-384281J	1-3	ED-338333	1-30	ED-717990	26-D2	EI-349719	19-IC1
BT-384281J	13-T501	ED-338333	3-D1	ED-717990	26-D3	EI-349719	19-IC2
EC-201637	3-C20B	ED-346526	1-34	ED-717990	26-D4	EI-349719	19-IC3
EC-201637	3-C21B	ED-346526	19-D1	ED-717990	26-D5	EI-349719	19-IC4
EC-324662	20-C107	ED-346526	19-D2	ED-718658	1-11	EI-349719	19-IC5
EC-324662	20-C108	ED-346567	1-26	ED-718658	27-D1	EI-349719	19-IC9
EC-326583	20-C106	ED-346567	3-D7	ED-718658	27-D2	EI-349719	19-IC11
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ED-307572	3-D16	ED-349460-A	9-D5	ED-726882J	27-PH1	EI-370973	11-IC201
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ER-322591	15-R18	ET-308472	3-TR11	ET-724344J	1-104		
ER-322591	15-R19	ET-328265	1-117	ET-724344J	27-Q4		
ER-322787	3-R28	ET-328265	14-TR3	ET-726883J	1-94		
ER-327710	9-R31	ET-336869	1-112	ET-726883J	27-Q3		
ER-327710	9-R59	ET-336869	14-TR2	EV-352088	19-VR1		
ER-327710	10-R109	ET-337759	1-103	EV-356576	9-VR2		
ER-327710	10-R110	ET-337759	9-TR1	EV-358829	9-VR3		
ER-333379	9-R35	ET-338410	1-111	EV-358829	9-VR4		
ER-345466	3-R36	ET-338410	4-TR101	EV-361673	9-VR1		
ER-345466	3-R37	ET-349081	1-114	EV-384316J	1-122		
ER-345466	3-R38	ET-349081	9-TR2	EV-384316J	15-VR1		
ER-345466	3-R39	ET-349081	9-TR13	EV-384316J	15-VR2		
ER-345466	3-R40	ET-349081	9-TR14	EV-384317J	1-123		
ER-355633	9-R10	ET-349081	19-TR5	EV-384317J	15-VR3		
ER-356573	1-84	ET-349449	1-102	EV-384318J	1-120		
ER-356573	13-R504	ET-349449	14-TR1	EV-384318J	9-VR5		
ER-371591	5-R201	ET-349449	14-TR4	EV-384319J	1-121		
ER-382933J	3-R56	ET-353899	1-106	EV-384319J	4-VR101		
ER-382934J	3-R68	ET-353899	9-TR3	EV-384323J	1-125		
ER-382940J	3-R59	ET-353899	9-TR4	EV-384323J	7-VR501		
ER-382940J	3-R62	ET-353899	9-TR18	EV-384328J	1-124		
ER-382940J	3-R64	ET-353899	10-TR101	EV-384328J	7-VR401		
ER-382941J	3-R70	ET-353899	10-TR102	EW-363827	24-37		

ABBREVIATIONS FOR SERVICE MANUAL

ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
AFC	Auto Frequency Control	MEMO	MEMOry
AGC	Auto Gain Control	MI-COM	MIcro-COMputer
ALC	Auto Level Control	MIN	MINimum
AM	Amplitude Modulation	MIX	MIXing
AMP	AMPlifier	MPX	MultiPleX
ANT	ANTenna	MW	Medium Wave (frequency)
BATT	BATTery	NC	No Connection
BLK	BLocK	NFB	Negative Feed Back
BUFF	BUFFer	OSC	OSCillator
COMP	COMParator	PCB	Printed Circuit Board
DET	DETect (DETector)	PLL	Phase Locked Board
FLD		QD	Quadrature Detector
FM	Frequency Modulation	Rch	Right channel
FREQ	FREQuency	REF	REFerence
GND	GrouND	REG	REGulator
H	High	RF	Radio Frequency
HPF	High Pass Filter	SEG	SEGment
IF	Intermediate Frequency	SELE	SELEctor
IHF	Institute of High Fidelity	SENS	SENSitivity
IND	INDicator	SIG	SIGnal
I/O	In/Out	S/N	Signal to Noise Ratio
JW	Jumper Wire	SSG	Standard Signal Generator
L	Low	STD	STanDard
LCD	Liquid Crystal Display	SW	SWitch: Short Wave (frequency)
Lch	Left channel	THD	Total Harmonic Distortion
LED	Light Emitting Diode	TP	Test Point
LPF	Low Pass Filter	VCO	Voltage Controlled Oscillator
LW	Long Wave (Frequency)	VR	Variable Resistor
		X'TAL	Crystal

AKAI ELECTRIC CO., LTD.

12-14, 2-Chome, Higashi-Kojiya, Ohta-Ku, Tokyo, Japan
SERVICE DEPARTMENT TEL: Tokyo(745)9884 TOKYO TELEX: J26261
Printed No. 881114-A1-1400 Printed Date: December. 19, 1988
350 Printed in Japan

AKAI

MODEL AA-V335
MODEL AA-V435

SCHEMATIC DIAGRAM AND PC BOARDS

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13. TUNER BLOCK DIAGRAM 18
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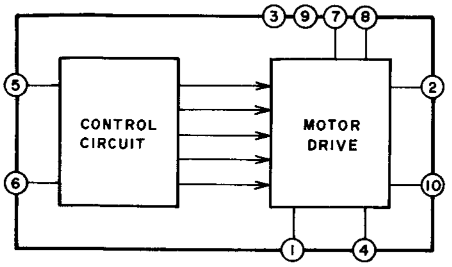
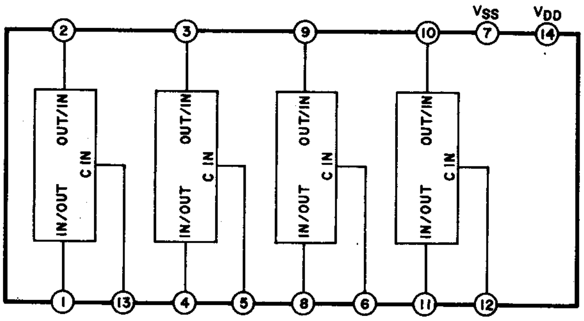
BA6229 (Reversible Motor Drive)


③ ⑨ ⑦ ⑧
⑤
⑥
CONTROL CIRCUIT
MOTOR DRIVE
②
⑩
①
④

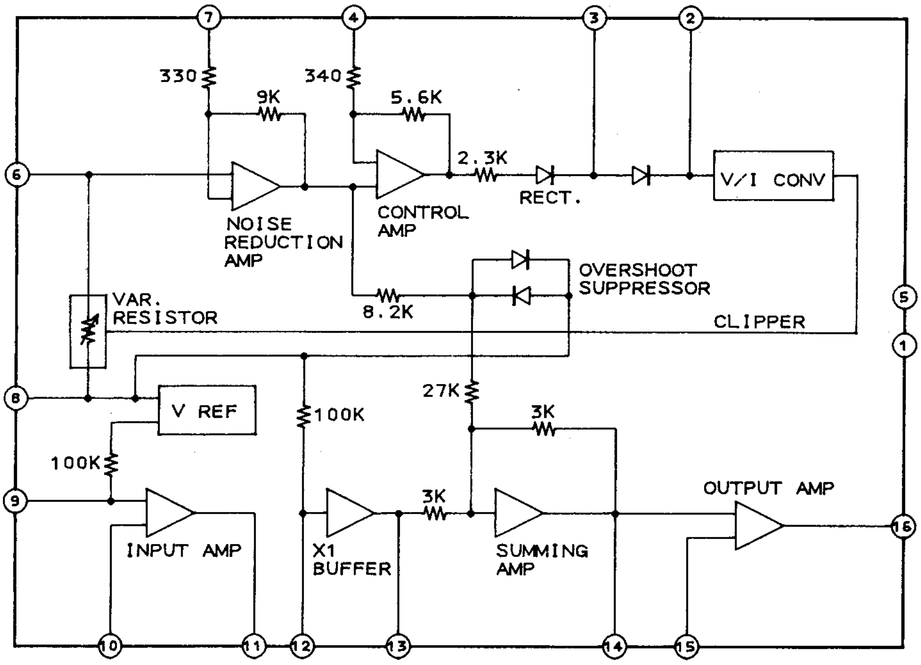
INPUT		OUTPUT		MODE
⑤	⑥	②	⑩	
H	H	L	L	BRAKE
L	H	L	H	CASSETTE & TAPE LOADING
H	L	H	L	CASSETTE & TAPE UNLOADING
L	L	OPEN	OPEN	STOP

M4066B/BU4066B

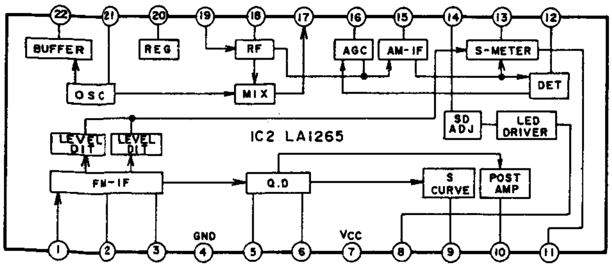

VSS
VDD
② ③ ⑨ ⑩ ⑦ ⑭
OUT/IN
C IN
IN/OUT
① ⑬ ④ ⑤ ⑧ ⑥ ⑪ ⑫

C IN	IMPEDANCE BETWEEN IN/OUT – OUT/IN
H	0.5 to 5×10^{2} OHMS
L	MORE THAN 10^{9} OHMS

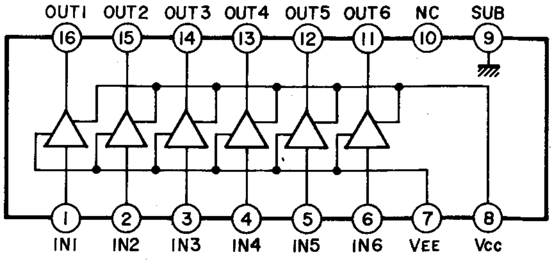
LA2730 (Dolby B Type Noise Reduction)


⑦ ④ ③ ②
330
340
9K
5.6K
2.3K
⑥
NOISE REDUCTION AMP
CONTROL AMP
RECT.
V/I CONV
OVERSHOOT SUPPRESSOR
VAR. RESISTOR
8.2K
CLIPPER
⑤
①
⑧
V REF
100K
27K
3K
100K
⑨
INPUT AMP
X1 BUFFER
3K
SUMMING AMP
OUTPUT AMP
⑯
⑩ ⑪ ⑫ ⑬ ⑭ ⑮

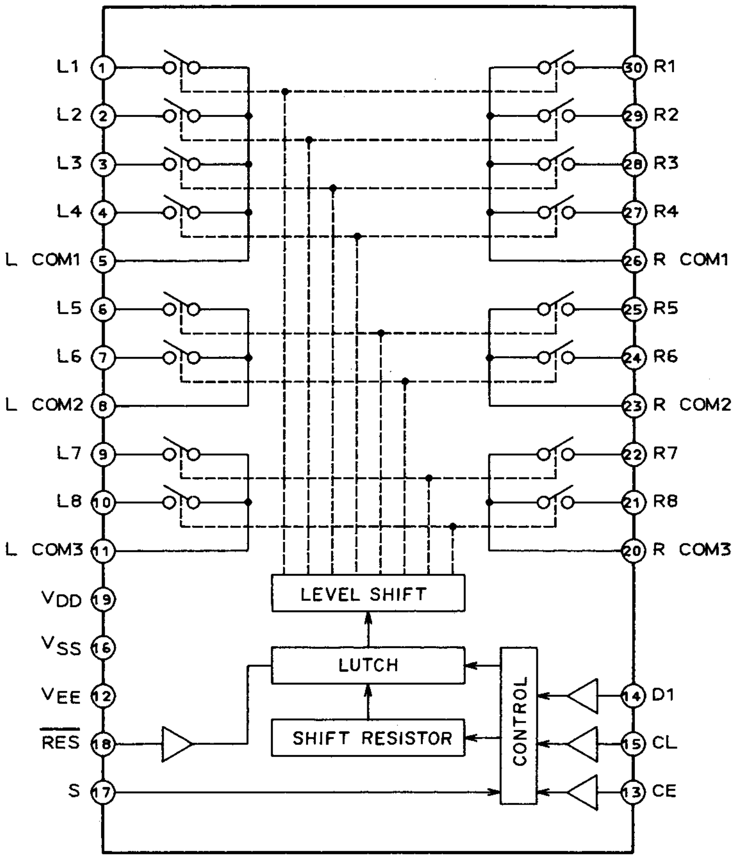
LA1265 (AM/FM Demodulator)


㉒ ㉑ ⑳ ⑲ ⑱ ⑰ ⑯ ⑮ ⑭ ⑬ ⑫
BUFFER
REG
RF
AGC
AM-IF
S-METER
OSC
MIX
DET
SD ADJ
LED DRIVER
LEVEL DIT
LEVEL DIT
IC2 LA1265
FM-IF
Q.D
S CURVE
POST AMP
GND
VCC
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

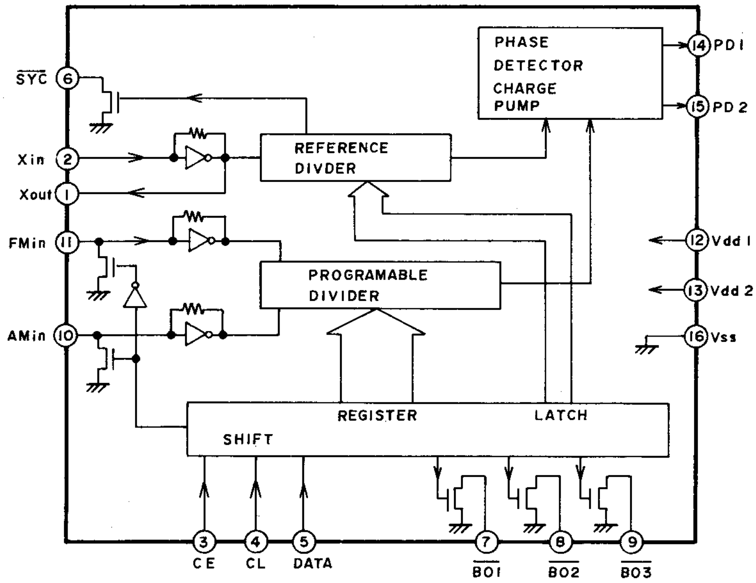
LB1294 (HEX. Driver)


OUT1 OUT2 OUT3 OUT4 OUT5 OUT6 NC SUB
⑯ ⑮ ⑭ ⑬ ⑫ ⑪ ⑩ ⑨
① ② ③ ④ ⑤ ⑥ ⑦ ⑧
IN1 IN2 IN3 IN4 IN5 IN6 VEE Vcc

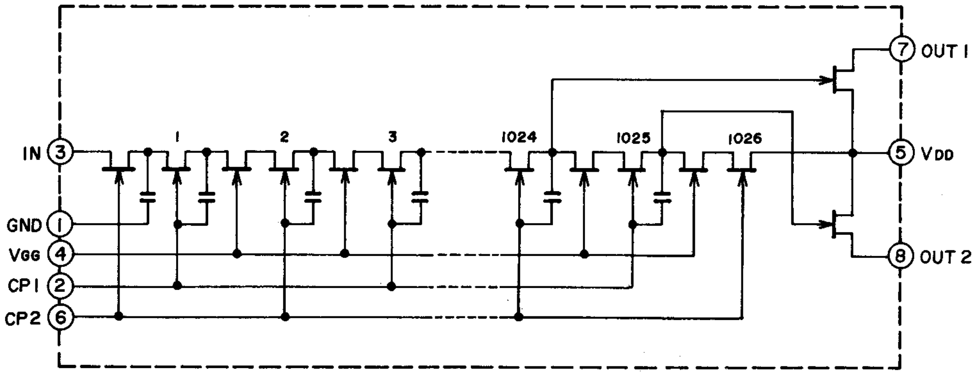
LC7821 (Analogue Function Switch)


L1 1
L2 2
L3 3
L4 4
L COM1 5
L5 6
L6 7
L COM2 8
L7 9
L8 10
L COM3 11
VDD 19
VSS 16
VEE 12
RES 18
S 17
30 R1
29 R2
28 R3
27 R4
26 R COM1
25 R5
24 R6
23 R COM2
22 R7
21 R8
20 R COM3
14 D1
15 CL
13 CE
LEVEL SHIFT
LUTCH
SHIFT RESISTOR
CONTROL

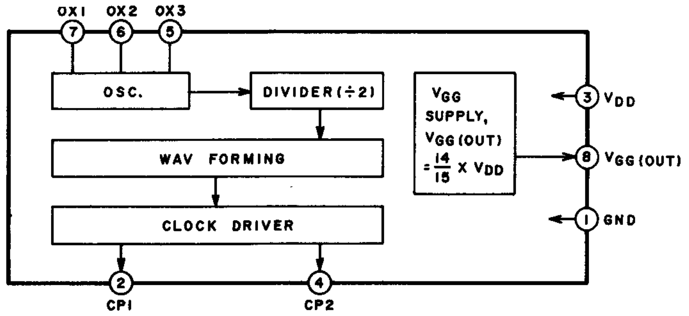
LM7001 (PLL Synthesizer)


SYC 6
Xin 2
Xout 1
FMin 11
AMin 10
PHASE DETECTOR CHARGE PUMP
14 PD1
15 PD 2
REFERENCE DIVDER
PROGRAMABLE DIVIDER
12 Vdd 1
13 Vdd 2
16 Vss
REGISTER
LATCH
SHIFT
3 CE
4 CL
5 DATA
7 BO1
8 BO2
9 BO3

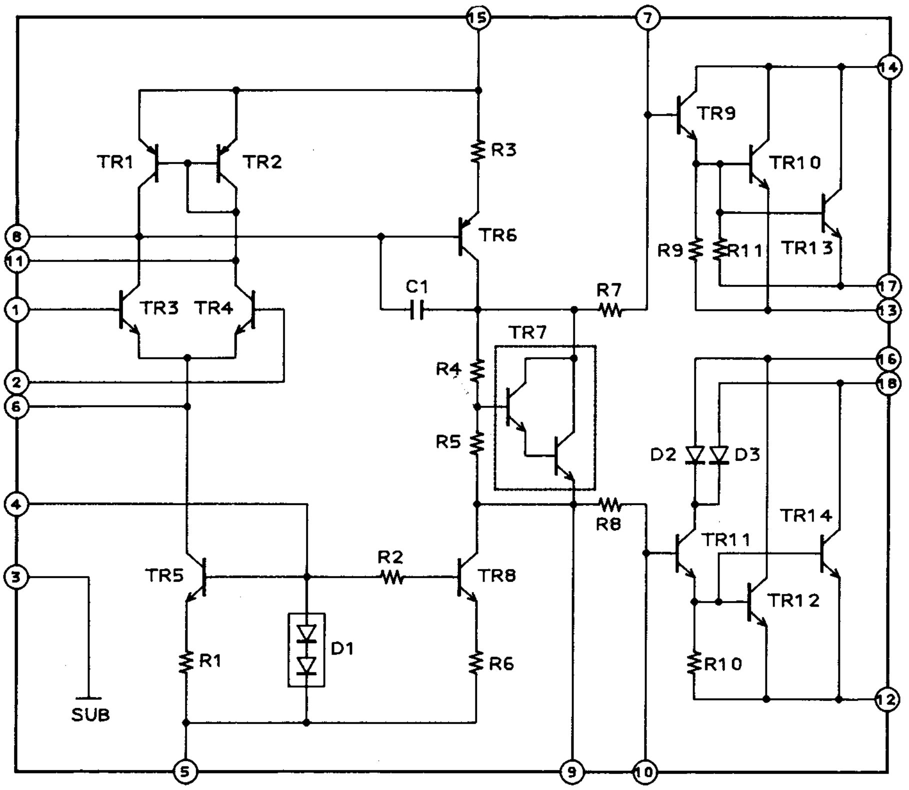
MN3007 (1024 Stage Low Noise BBD)


IN 3
GND 1
VGG 4
CP1 2
CP2 6
1
2
3
1024
1025
1026
7 OUT 1
5 VDD
8 OUT 2

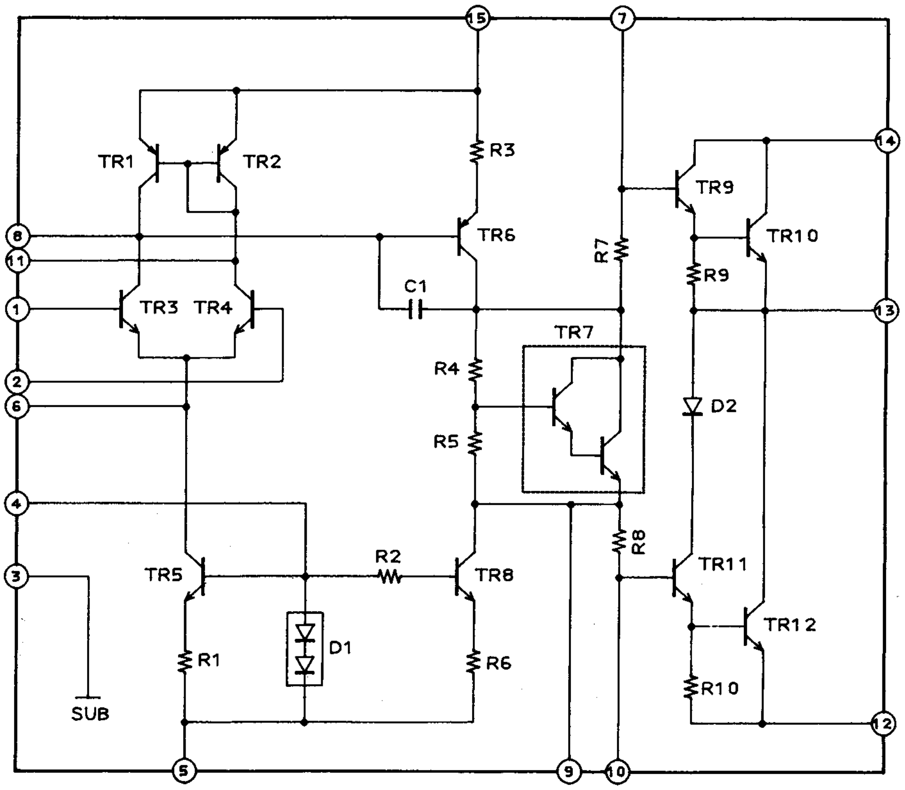
MN3101 (Clock Generator For BBD)


OX1
OX2
OX3
7
6
5
OSC.
DIVIDER(÷2)
WAV FORMING
CLOCK DRIVER
VGG SUPPLY, VGG(OUT) = 14/15 X VDD
3 VDD
8 VGG(OUT)
1 GND
2 CP1
4 CP2

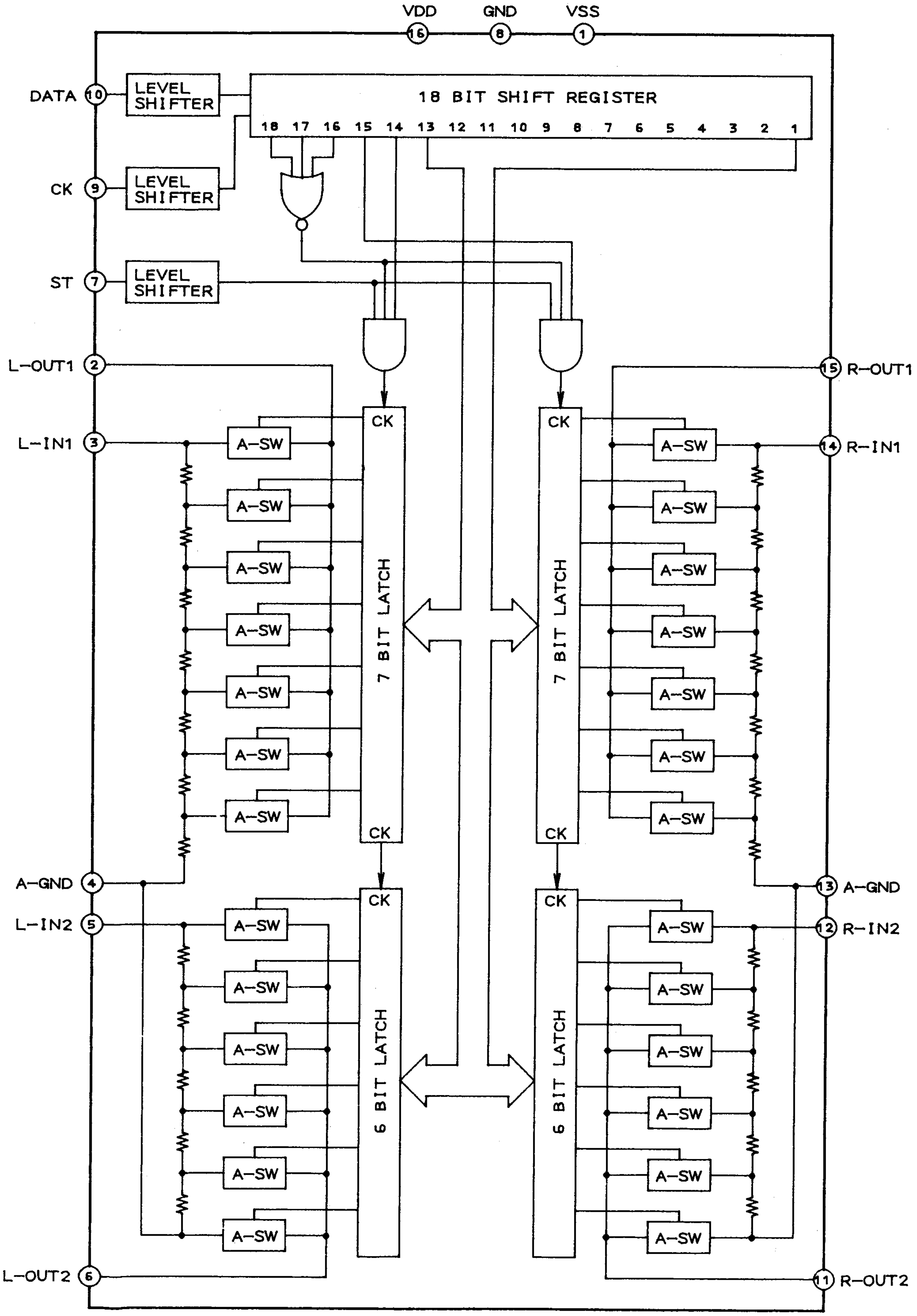
STK4044V (Power Amplifier)


15
7
14
8
11
1
2
6
4
3
5
9
10
12
13
16
17
18
TR1
TR2
TR3
TR4
TR5
TR6
TR7
TR8
TR9
TR10
TR11
TR12
TR13
TR14
R1
R2
R3
R4
R5
R6
R7
R8
R9
R10
R11
C1
D1
D2
D3
SUB

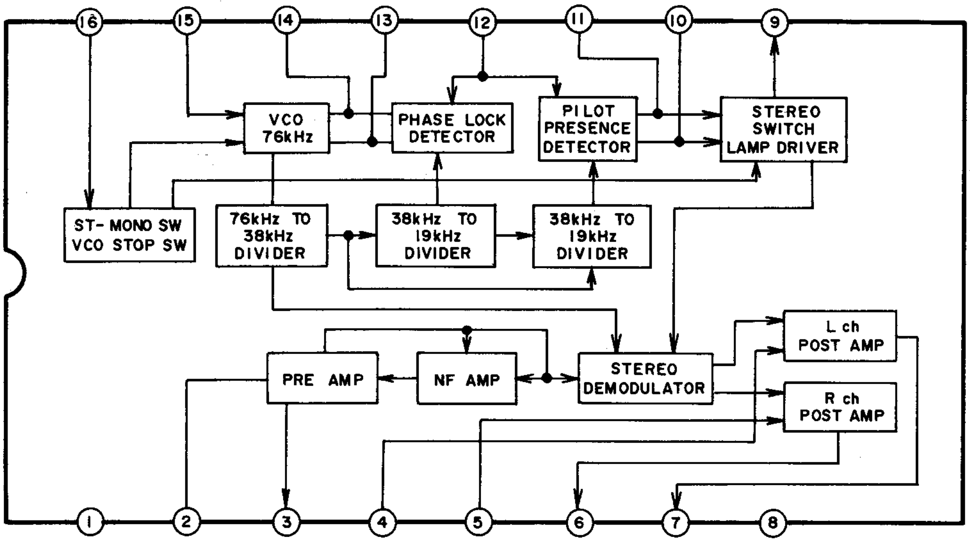
STK4046V (Power Amplifier)


15
7
14
8
11
1
2
6
4
3
5
9
10
12
13
TR1
TR2
TR3
TR4
TR5
TR6
TR7
TR8
TR9
TR10
TR11
TR12
R1
R2
R3
R4
R5
R6
R7
R8
R9
R10
C1
D1
D2
SUB

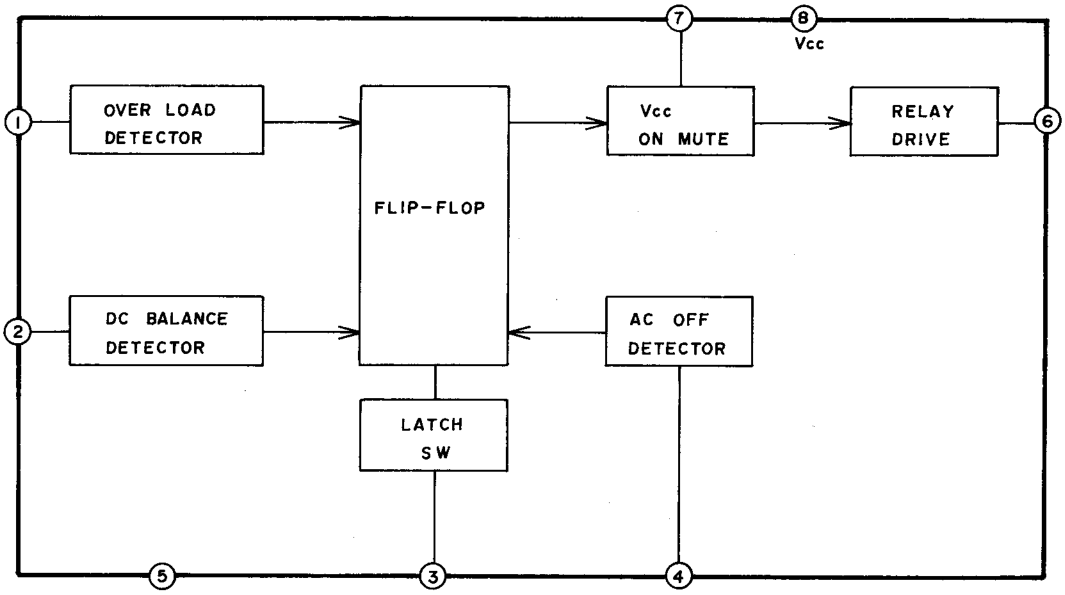
TC9154AP (Electronic Volume)


VDD
GND
VSS
16
8
1
DATA
10
LEVEL SHIFTER
CK
9
LEVEL SHIFTER
ST
7
LEVEL SHIFTER
18 BIT SHIFT REGISTER
18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
L-OUT1
2
L-IN1
3
A-GND
4
L-IN2
5
L-OUT2
6
R-OUT1
15
R-IN1
14
A-GND
13
R-IN2
12
R-OUT2
11
CK
7 BIT LATCH
CK
CK
6 BIT LATCH
A-SW

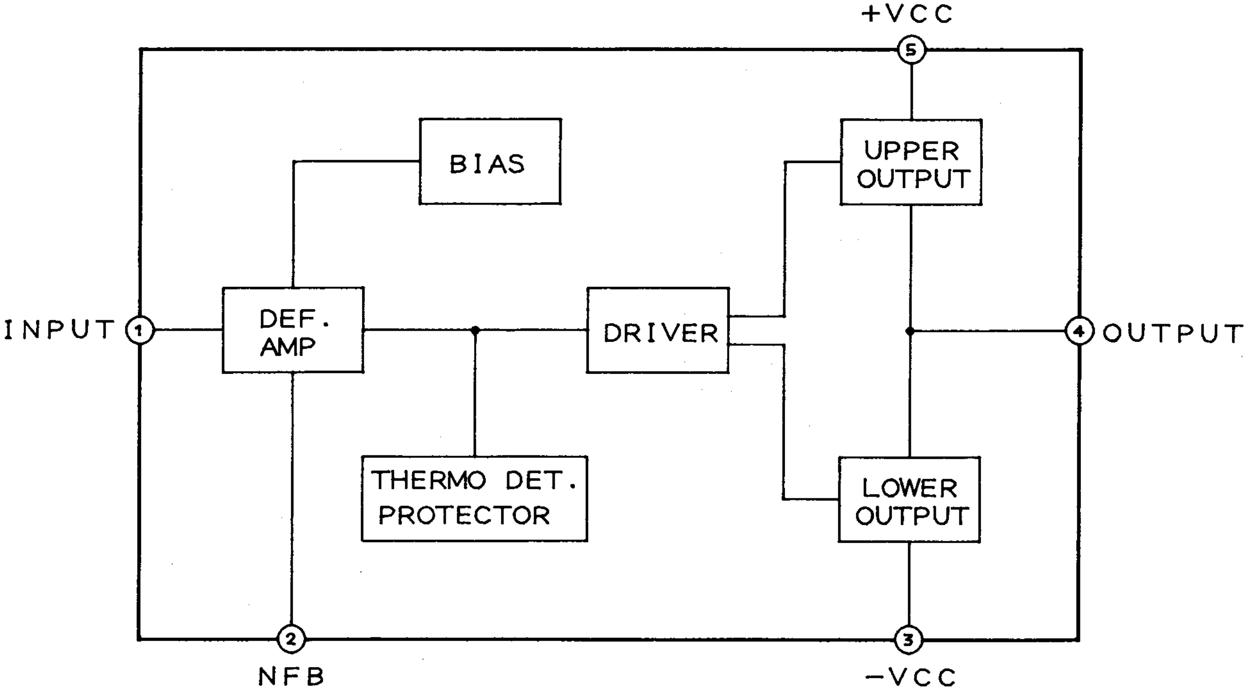
μPC1235C (Stereo MPX)

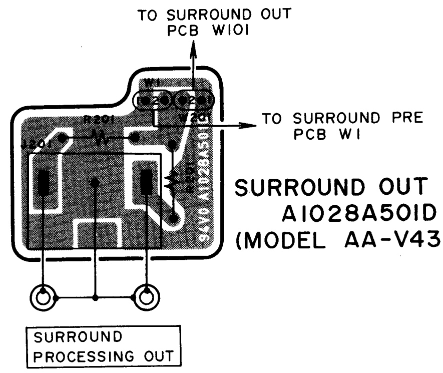

16
15
14
13
12
11
10
9
VCO 76kHz
PHASE LOCK DETECTOR
PILOT PRESENCE DETECTOR
STEREO SWITCH LAMP DRIVER
ST-MONO SW VCO STOP SW
76kHz TO 38kHz DIVIDER
38kHz TO 19kHz DIVIDER
38kHz TO 19kHz DIVIDER
L ch POST AMP
PRE AMP
NF AMP
STEREO DEMODULATOR
R ch POST AMP
1
2
3
4
5
6
7
8

μPC1237H (Stereo Power Amp Protector)

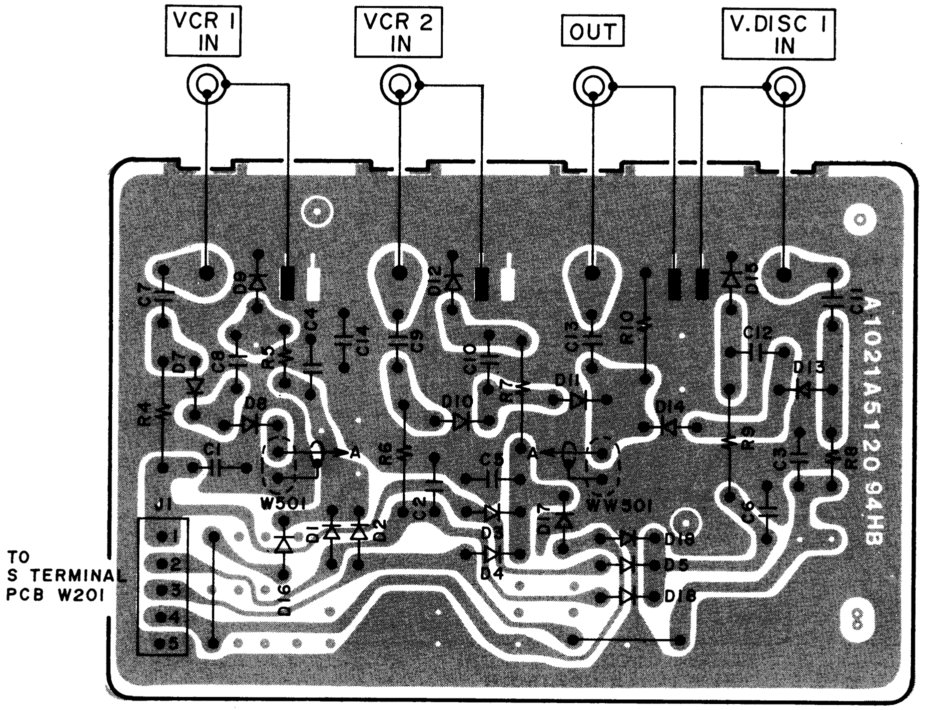

7
8
Vcc
OVER LOAD DETECTOR
FLIP-FLOP
Vcc ON MUTE
RELAY DRIVE
1
6
2
DC BALANCE DETECTOR
AC OFF DETECTOR
LATCH SW
5
3
4

μPC1238 (Power Amplifier)

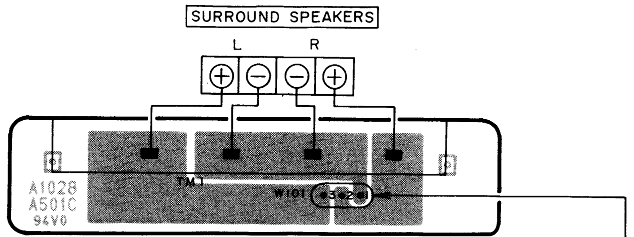

+VCC
5
BIAS
UPPER OUTPUT
INPUT
1
DEF. AMP
DRIVER
4
OUTPUT
THERMO DET. PROTECTOR
LOWER OUTPUT
2
NFB
3
-VCC


TO SURROUND OUT PCB W101
TO SURROUND PRE PCB W1
W1
W20
J201
R201
94V0 A1028A501D
SURROUND PROCESSING OUT

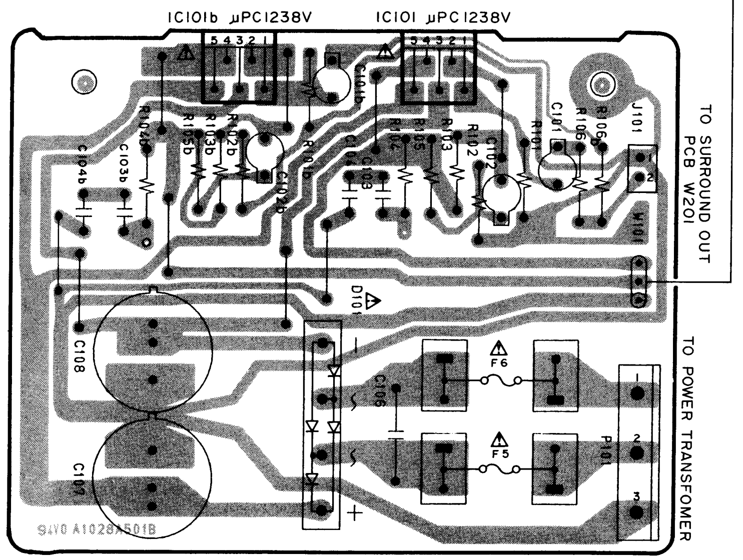
SURROUND OUT PCB
A1028A501D
(MODEL AA-V435 ONLY)


VCR 1 IN
VCR 2 IN
OUT
V.DISC 1 IN
TO S TERMINAL PCB W201
J1
W501
WW501
A1021A5120 94HB

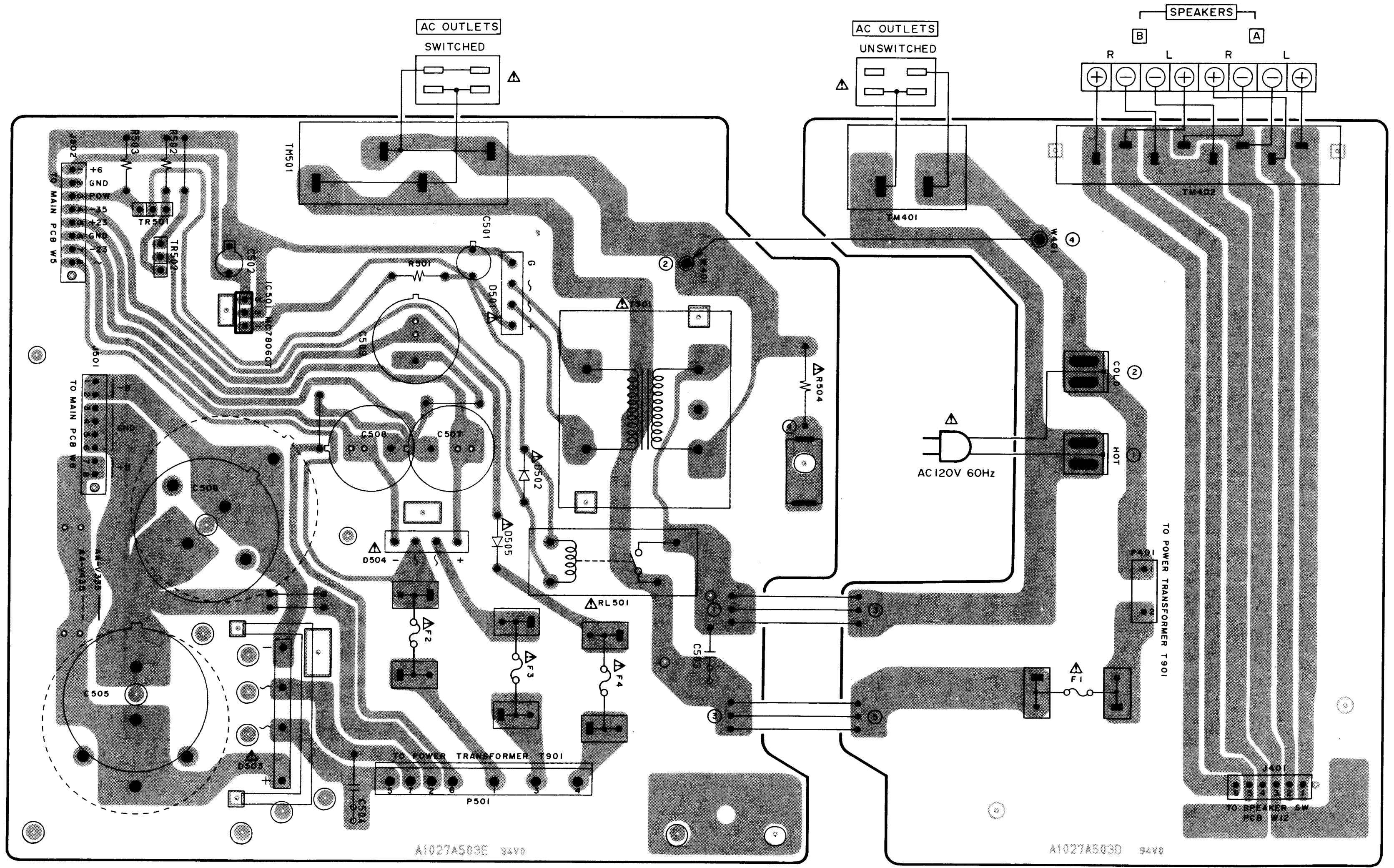
RF PCB A1021A5120


SURROUND SPEAKERS
L
R
TM1
W101
A1028 A501C 94V0

SP TERMINAL (B) PCB
A1028A501C
(MODEL AA-V435 ONLY)

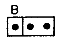

IC101b μPC1238V
IC101 μPC1238V
J101
W101
TO SURROUND OUT PCB W201
TO POWER TRANSFOMER
D101
F6
F5
C108
C107
P101
94V0 A1028A501B

SURROUND MAIN PCB
A1028A501B
(MODEL AA-V435 ONLY)

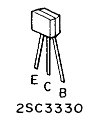

AC OUTLETS
SWITCHED
AC OUTLETS
UNSWITCHED
SPEAKERS
B
A
R
L
R
L
TM501
TM401
TM402
TO MAIN PCB W5
TO MAIN PCB W6
T901
RL501
C505
C506
C508
C507
F1
F2
F3
F4
AC120V 60Hz
COLD
HOT
TO POWER TRANSFORMER T901
TO POWER TRANSFORMER T901
P501
P401
J401
TO SPEAKER SW PCB W12
A1027A503E 94V0
A1027A503D 94V0

POWER SUPPLY PCB A1027A503E

SP TERMINAL (A) PCB A1027A503D



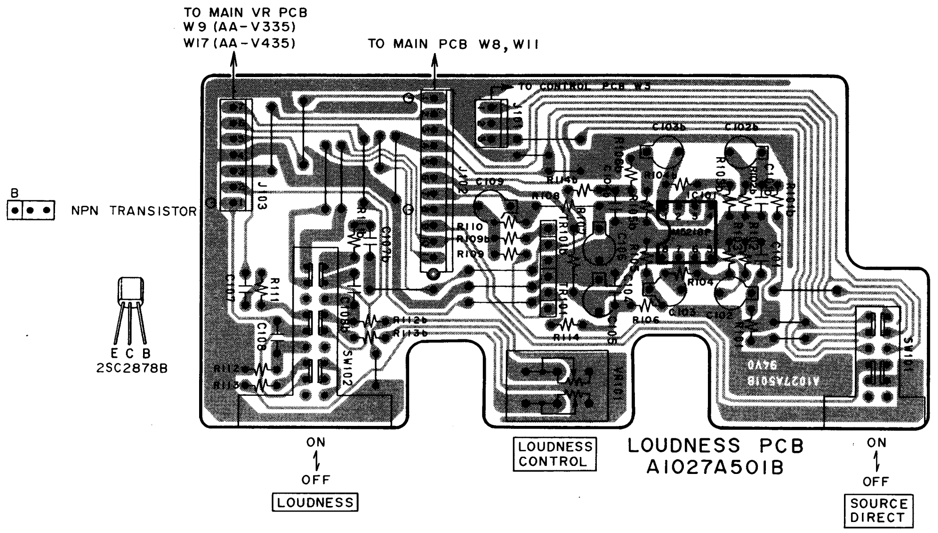
NPN TRANSISTOR



2SC3330
DTC114TS

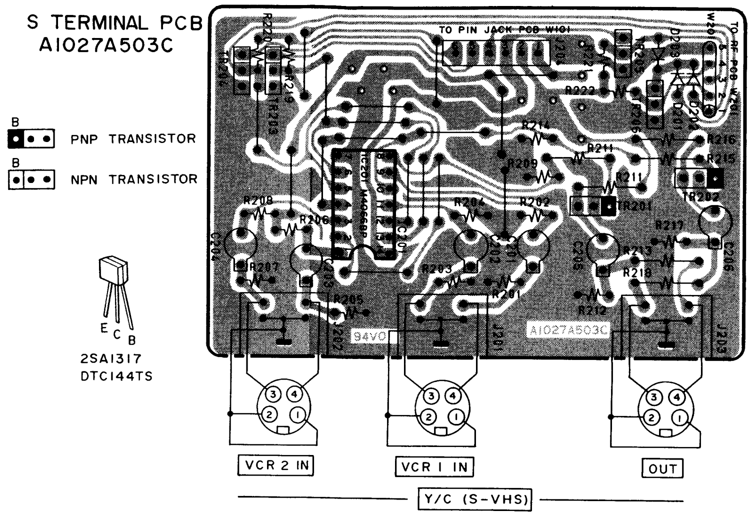
WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

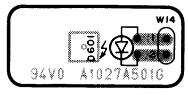
AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT


TO MAIN VR PCB
W9 (AA-V335)
W17 (AA-V435)
TO MAIN PCB W8, W11
TO CONTROL PCB W3
B
NPN TRANSISTOR
E C B
2SC2878B
J103
J102
C109
R114b
R108
C103b
C102b
IC101
M5218P
R110
R109b
R109
TR101b
TR104
C105
C104
R104
R106
C103
C102
C107
R111
C108
C107b
C108b
R112b
R113b
R112
R113
SW102
R114
VR101
SW101
A1027A501B
94V0
ON
OFF
LOUDNESS
LOUDNESS CONTROL
ON
OFF
SOURCE DIRECT

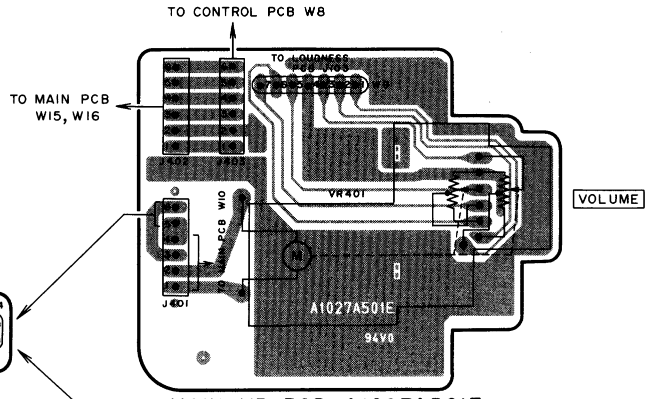
LOUDNESS PCB
A1027A501B

S TERMINAL PCB
A1027A503C

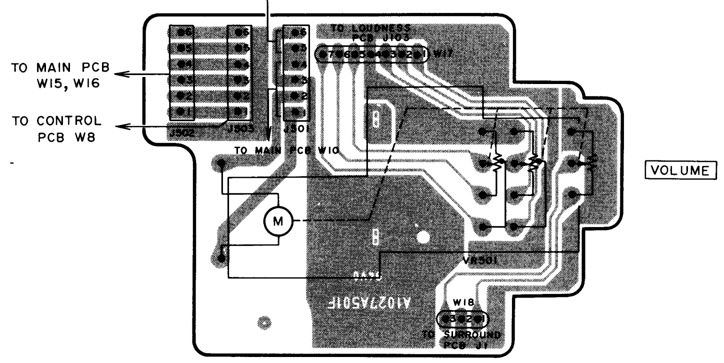

B
PNP TRANSISTOR
B
NPN TRANSISTOR
E C B
2SA1317
DTC144TS
TO PIN JACK PCB W101
TO RF PCB W201
W201
J204
TR206
R220
R219
TR203
TR205
R221
R222
D203
D201
D204
R214
R211
R216
R215
R209
TR202
TR201
R208
R206
IC201 M4066BP
C201
R204
R202
R217
C204
R207
C203
R203
C202
R201
C205
R213
R218
C206
R205
R212
J202
J201
J203
94V0
A1027A503C
VCR 2 IN
VCR 1 IN
OUT
Y/C (S-VHS)


W14
D601
94V0 A1027A501G

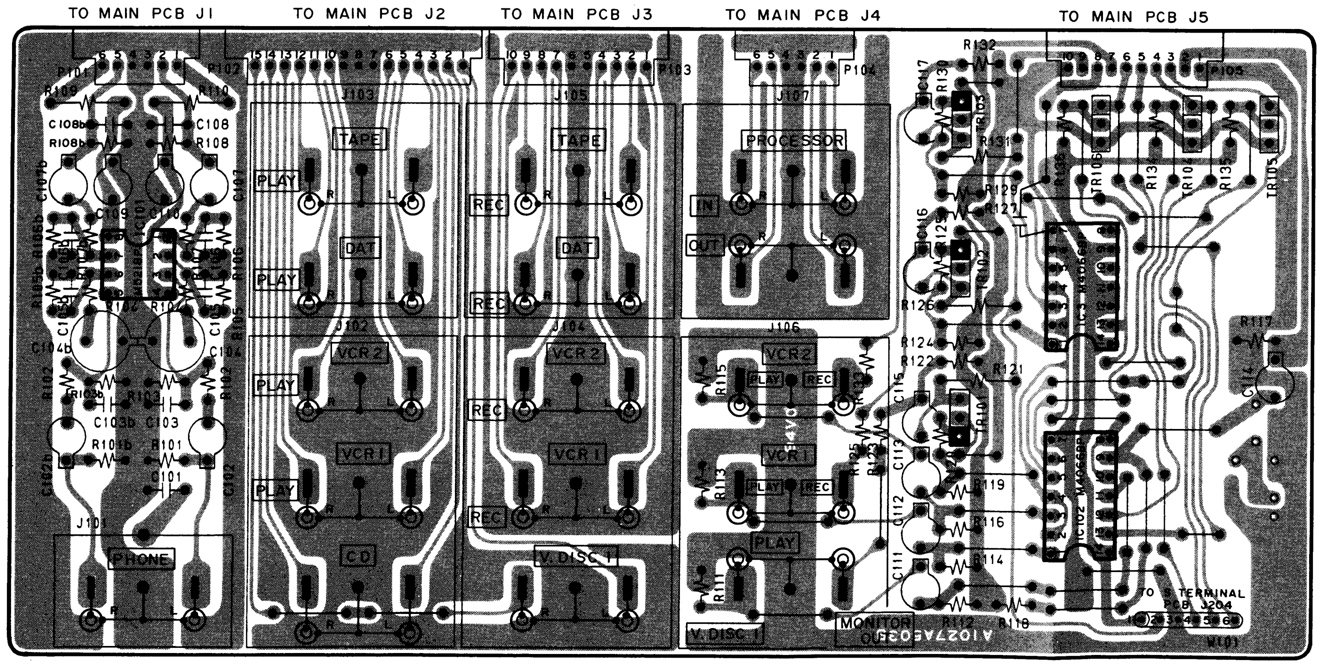
LED (B) PCB
A1027A501G


TO CONTROL PCB W8
TO MAIN PCB
W15, W16
TO LOUDNESS PCB J103
W9
J402
J403
J401
TO MAIN PCB W10
VR401
M
A1027A501E
94V0
VOLUME

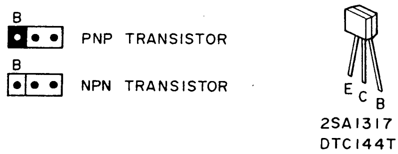
MAIN VR PCB A1027A501F
(MODEL AA-V335)

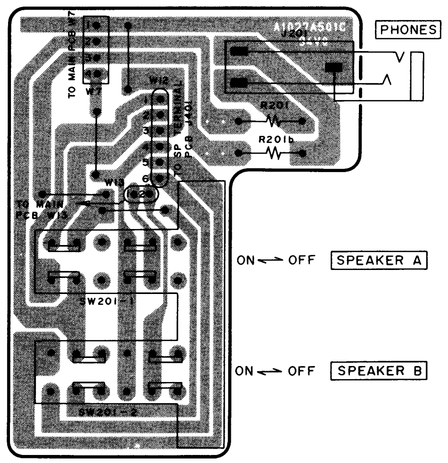

TO MAIN PCB
W15, W16
TO CONTROL
PCB W8
TO LOUDNESS PCB J103
W17
J502
J503
J501
TO MAIN PCB W10
M
VR501
A1027A501F
W18
TO SURROUND PCB J1
VOLUME

MAIN VR PCB A1027A501E
(MODEL AA-V435)


TO MAIN PCB J1
TO MAIN PCB J2
TO MAIN PCB J3
TO MAIN PCB J4
TO MAIN PCB J5
P101
P102
P103
P104
P105
R109
R110
C108b
C108
R108b
R108
C107b
C107
C109
C110
IC101
M5218P
C104b
C104
R102
R103b
R103
C103b
C103
R101b
R101
C101
C102b
C102
J101
PHONE
J103
J102
TAPE
DAT
VCR 2
VCR 1
CD
PLAY
J105
J104
REC
V. DISC 1
J107
PROCESSOR
IN
OUT
J106
R115
R113
R111
MONITOR OUT
V. DISC 1
R132
R130
R131
R129
R127
R126
R124
R122
R121
R119
R116
R114
R112
R118
R117
C117
C116
C115
C113
C112
C111
C114
TR103
TR102
TR101
TR106
TR104
TR105
R133
R134
R135
IC103 M4066BP
IC102 M4066BP
TO S TERMINAL PCB J204
W101
A1027A503B
94V0
R
L

PIN JACK PCB A1027A503B

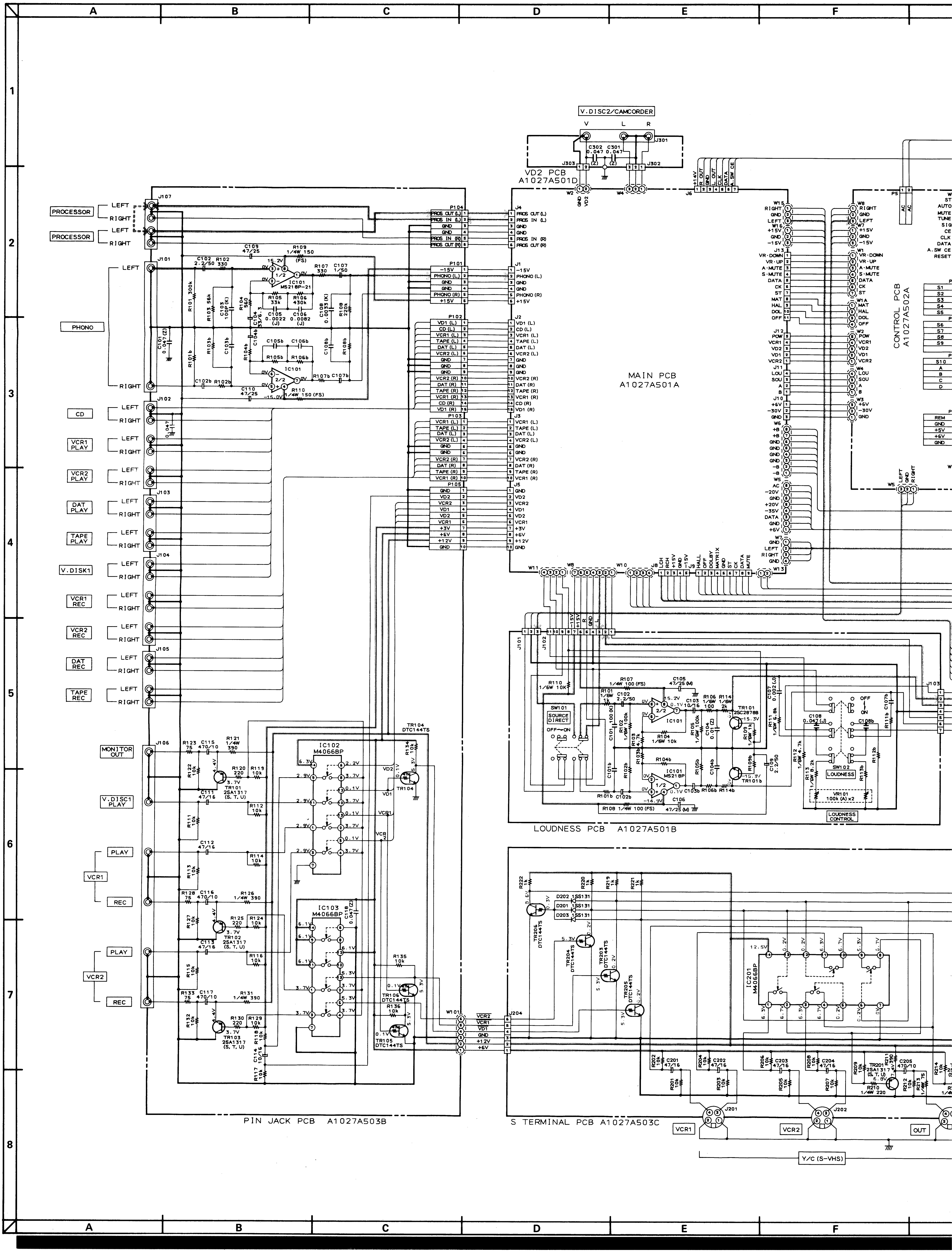

B
PNP TRANSISTOR
B
NPN TRANSISTOR
E C B
2SA1317
DTC144TS

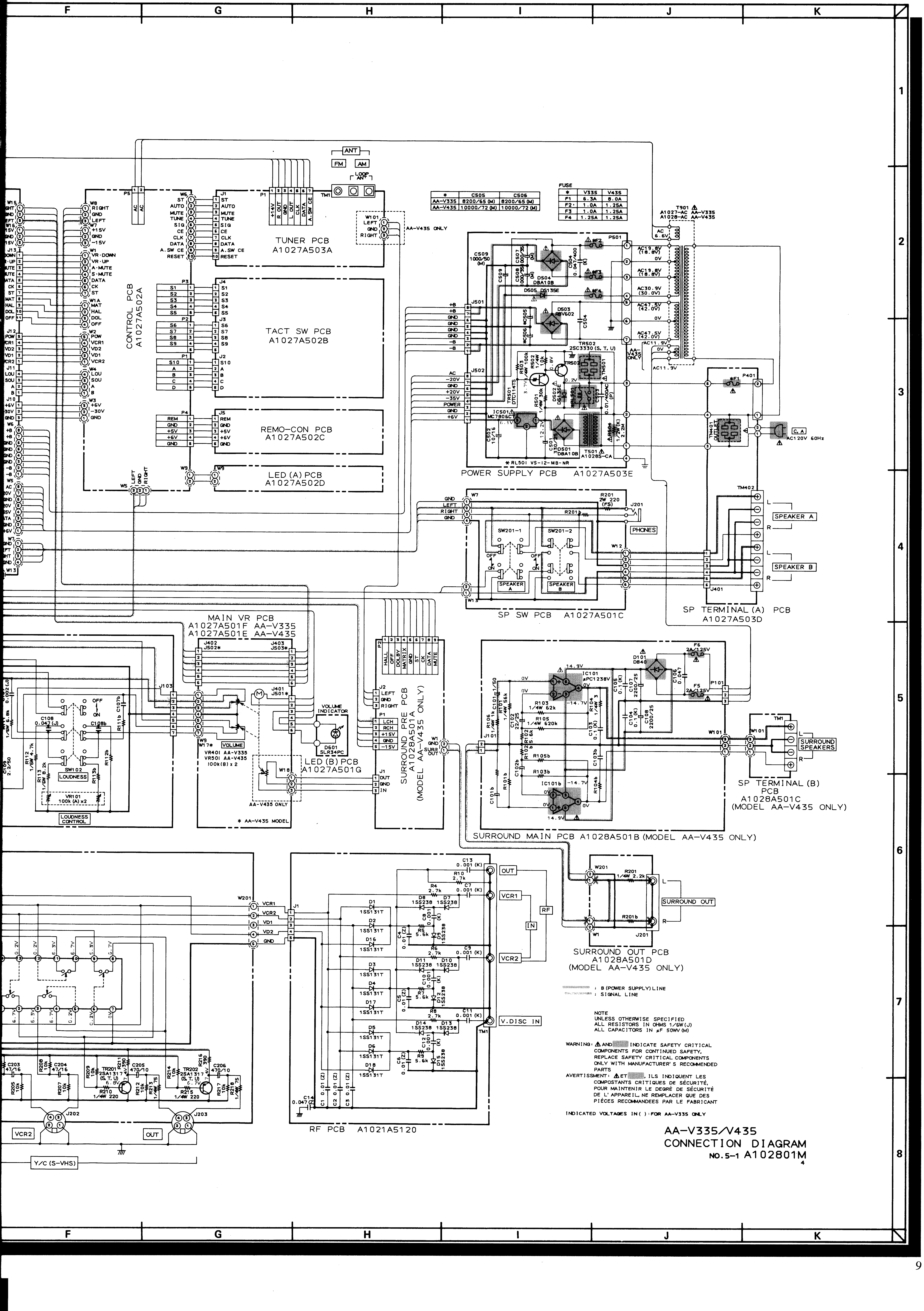

TO MAIN PCB W7
W7
A1027A501C
J201
PHONES
W12
TO SP TERMINAL PCB J401
R201
R201b
W13
TO MAIN PCB W13
SW201-1
SW201-2
ON ↔ OFF
SPEAKER A
ON ↔ OFF
SPEAKER B

SPEAKER SW PCB
A1027A501C

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY.
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL,
NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

A
B
C
D
E
F
1
2
3
4
5
6
7
8
V.DISC2/CAMCORDER
V
L
R
J301
J302
J303
C302 0.047
C301 0.047
VD2 PCB
A1027A501D
MAIN PCB
A1027A501A
CONTROL PCB
A1027A502A
LOUDNESS PCB A1027A501B
PIN JACK PCB A1027A503B
S TERMINAL PCB A1027A503C
PROCESSOR
PHONO
CD
VCR1 PLAY
VCR2 PLAY
DAT PLAY
TAPE PLAY
V.DISK1
VCR1 REC
VCR2 REC
DAT REC
TAPE REC
MONITOR OUT
V.DISC1 PLAY
VCR1
VCR2
PLAY
REC
LEFT
RIGHT
IC101 M5218P-21
IC102 M4066BP
IC103 M4066BP
IC101 M5218P
IC201 M4066BP
TR101 2SA1317 (S, T, U)
TR102 2SA1317 (S, T, U)
TR103 2SA1317 (S, T, U)
TR104 DTC144TS
TR105 DTC144TS
TR106 DTC144TS
TR101 2SC2878B
TR201 2SA1317
TR203 DTC144TS
TR204 DTC144TS
TR205 DTC144TS
TR206 DTC144TS
D201 1SS131
D202 1SS131
D203 1SS131
SW101 SOURCE DIRECT
OFF↔ON
SW102 LOUDNESS
VR101 100k (A) x2
LOUDNESS CONTROL
P101
P102
P103
P104
P105
J1
J2
J3
J4
J5
J6
J7
J8
J9
J10
J11
J12
J13
W1
W2
W3
W4
W5
W6
W7
W8
W10
W11
W13
W15
W16
W101
J101
J102
J103
J104
J105
J106
J107
J201
J202
J204
Y/C (S-VHS)
OUT


F
G
H
I
J
K
1
2
3
4
5
6
7
8
ANT
FM
AM
LOOP ANT
TM1
TUNER PCB
A1027A503A
W101
LEFT
GND
RIGHT
AA-V435 ONLY
CONTROL PCB
A1027A502A
TACT SW PCB
A1027A502B
REMO-CON PCB
A1027A502C
LED (A) PCB
A1027A502D
P5
AC
W6
ST
AUTO
MUTE
TUNE
SIG
CE
CLK
DATA
A.SW CE
RESET
J1
P1
+14V
R OUT
GND
L OUT
CLK
DATA
A.SW CE
S1
S2
S3
S4
S5
S6
S7
S8
S9
S10
A
B
C
D
REM
GND
+5V
+6V
W9
W5
LEFT
GND
RIGHT
T901
A1027-AC AA-V335
A1028-AC AA-V435
P501
AC19.8V (18.8V)
0V
AC30.9V (30.0V)
AC47.5V (42.0V)
AC11.9V
AA-V435 ONLY
J501
+B
GND
-B
J502
-20V
+20V
-35V
POWER
+6V
C509 1000/50 (M)
C507 1000/35 (M)
C508 1000/35 (M)
D504 DBA10B
D505 DS135E
C504 0.047/400 (K)
D503 RBV602
C505
C506
TR502 2SC3330 (S, T, U)
TR501 DTC114TS
R502 1/4W 100k
R503 1/4W 1k
R501 1/4W 30k
D502 DS135E
RL501
C503 0.01/400AC (P)
IC501 MC7806CT
C502 10/16
C501 330
D501 DBA10B
R504 1/2W 2.2M
T501 A1028S-CA
*RL501 VS-12-MB-NR
POWER SUPPLY PCB A1027A503E
P401
F1
TM401 OUTLET
C, A
AC120V 60Hz
TM402
SPEAKER A
SPEAKER B
SP TERMINAL (A) PCB
A1027A503D
J401
W7
GND
LEFT
RIGHT
R201 2W 220 (FS)
J201
R201b
PHONES
SW201-1
SW201-2
OFF
ON
W12
W13
SP SW PCB A1027A501C
MAIN VR PCB
A1027A501F AA-V335
A1027A501E AA-V435
J402
J502*
J403
J503*
J401
J501*
J103
W9
W17*
VOLUME
VR401 AA-V335
VR501 AA-V435
100k(B) x 2
VOLUME INDICATOR
D601 SLR34PC
LED (B) PCB
A1027A501G
W18
AA-V435 ONLY
* AA-V435 MODEL
C108 0.047 (J)
C108b
C107b
R111b
R112 1/6W 4.7k
R113 1/6W 8.2k
R112b
R113b
SW102
LOUDNESS
VR101 100k (A) x2
LOUDNESS CONTROL
C109 2.2/50
P2
HALL
OFF
DOLBY
MATRIX
GND
SIG
CK
DATA
MUTE
J2
P1
LCH
RCH
+15V
GND
-15V
W1
OUT
IN
SURROUND PRE PCB
A1028A501A
(MODEL AA-V435 ONLY)
D101 DB40
F6 2A/125V
F5 2A/125V
P101
14.9V
IC101 μPC1238V
C105 0.1 (K)
C107 2200/25
C106 0.047
C104 0.1 (K)
C108 2200/25
R103 1/4W 62k
R105 1/4W 620k
R106 1/4W 1k
C101 1/50
R101 1/4W 56k
C102 22/25
R102 5.6k
J101
R102b
R105b
R103b
C102b
R101b
C101b
C103 0.1 (K)
C103b
R104 1/4W 3
R104b
IC101b
-14.7V
0V
W101
TM1
SURROUND SPEAKERS
SP TERMINAL (B) PCB
A1028A501C
(MODEL AA-V435 ONLY)
SURROUND MAIN PCB A1028A501B (MODEL AA-V435 ONLY)
W201
R201 1/4W 2.2k
R201b
W1
J201
SURROUND OUT
SURROUND OUT PCB
A1028A501D
(MODEL AA-V435 ONLY)
W201
VCR1
VCR2
VD1
VD2
GND
J1
C13 0.001 (K)
R10 2.7k
R4 2.7k
C7 0.001 (K)
D1 1SS131T
D7 1SS238
D2 1SS131T
D16 1SS131T
C4 0.01 (Z)
R5 5.6k
C8 0.001 (K)
D9 1SS238
R6 2.7k
C9 0.001 (K)
D3 1SS131T
D11 1SS238
D10 1SS238
D4 1SS131T
D17 1SS131T
C5 0.01 (Z)
R7 5.6k
C10 0.001 (K)
D12 1SS238
R8 2.7k
C11 0.001 (K)
D5 1SS131T
D14 1SS238
D13 1SS238
D6 1SS131T
D18 1SS131T
C6 0.01 (Z)
R9 5.6k
C12 0.001 (K)
D15 1SS238
C14 0.047
C1 0.01 (Z)
C2 0.01 (Z)
C3 0.01 (Z)
OUT
VCR1
VCR2
V.DISC IN
RF
IN
TM1
RF PCB A1021A5120
C203 47/16
R208 10k
C204 47/16
R209 10k
TR201 2SA1317 (S, T, U)
R211 390
C205 470/10
R212
R213 75
R214 10k
TR202 2SA1317 (S, T, U)
R216 390
C206 470/10
R217
R218 75
R205 10k
R207 10k
R210 1/4W 220
R215 1/4W 220
J202
J203
VCR2
OUT
Y/C (S-VHS)

*	C505	C506
AA-V335	8200/65 (M)	8200/65 (M)
AA-V435	10000/72 (M)	10000/72 (M)

FUSE

*	V335	V435
F1	6.3A	8.0A
F2	1.0A	1.25A
F3	1.0A	1.25A
F4	1.25A	1.25A

▒ ; B (POWER SUPPLY) LINE
▒ ; SIGNAL LINE

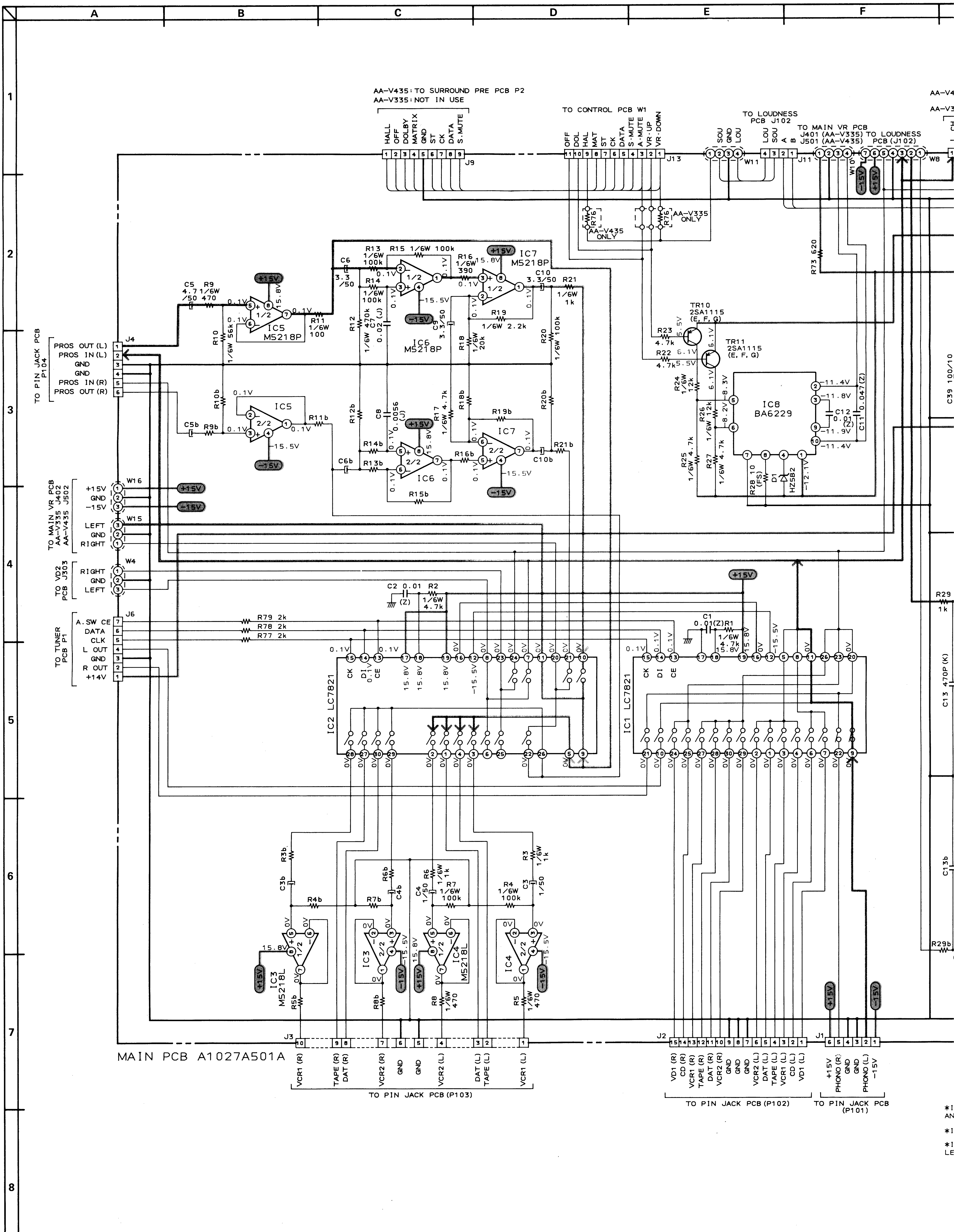
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W (J)
ALL CAPACITORS IN μF 50WV (M)

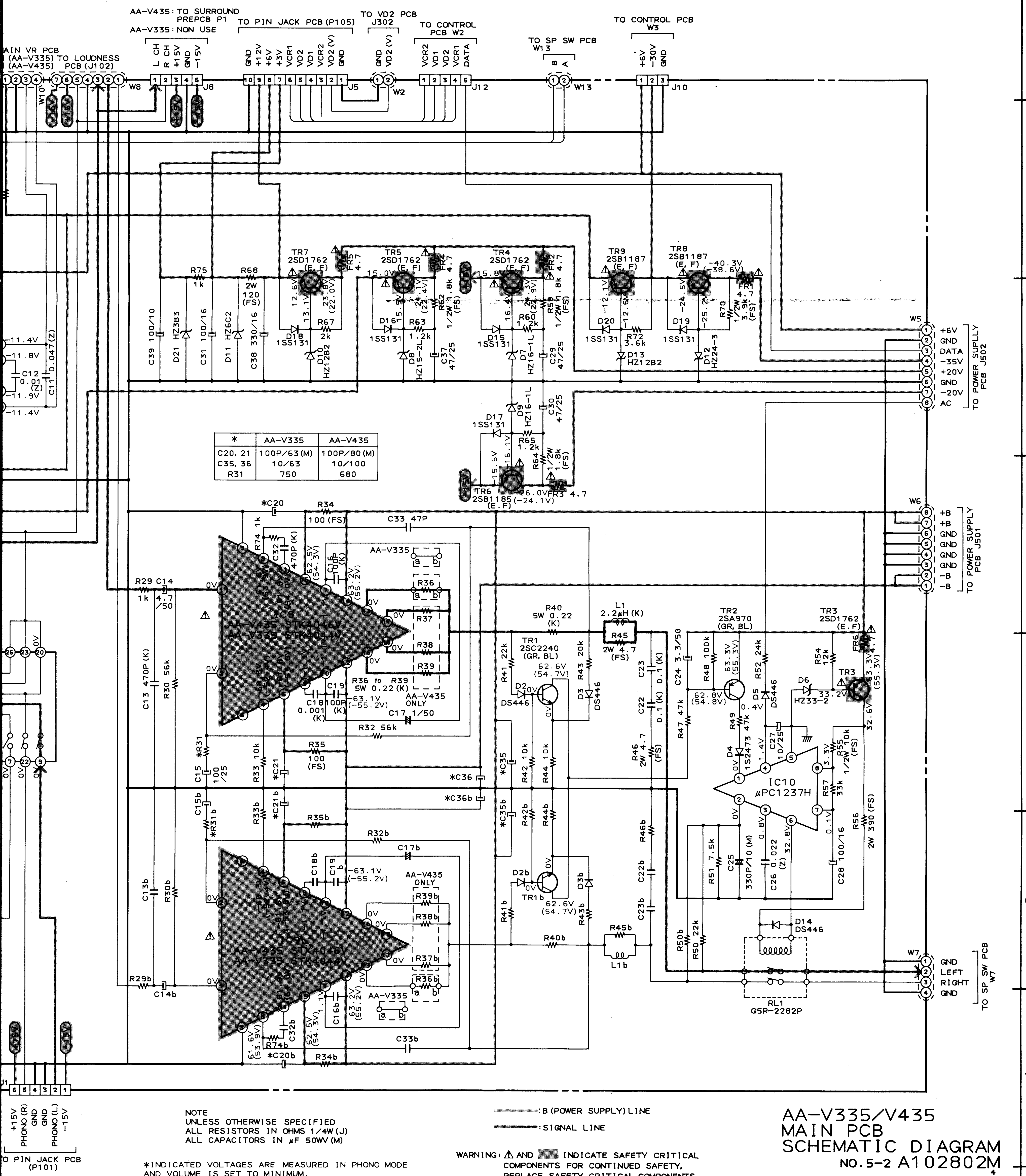
WARNING: ⚠ AND ▒ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSMENT: ⚠ ET ▒, ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ, POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

INDICATED VOLTAGES IN ( ): FOR AA-V335 ONLY

AA-V335/V435
CONNECTION DIAGRAM
NO.5-1 A102801M
4


MAIN PCB A1027A501A
AA-V435: TO SURROUND PRE PCB P2
AA-V335: NOT IN USE
HALL
OFF
DOLBY
MATRIX
GND
ST
CK
DATA
S.MUTE
J9
TO CONTROL PCB W1
OFF
DOL
HAL
MAT
ST
CK
DATA
S·MUTE
A·MUTE
VR·UP
VR·DOWN
J13
TO LOUDNESS PCB J102
SOU
GND
LOU
W11
J11
TO MAIN VR PCB J401 (AA-V335) TO LOUDNESS
J501 (AA-V435) PCB (J102)
W10
W8
R76
AA-V435 ONLY
AA-V335 ONLY
R73 620
TO PIN JACK PCB P104
PROS OUT (L)
PROS IN (L)
GND
GND
PROS IN (R)
PROS OUT (R)
J4
C5 4.7/50
R9 1/6W 470
IC5 M5218P
R10 1/6W 56k
R11 1/6W 100
C6 3.3/50
R13 1/6W 100k
R15 1/6W 100k
R14 1/6W 100k
R12 1/6W 470k
C7 0.02 (J)
IC6 M5218P
C9 3.3/50
R16 1/6W 390
IC7 M5218P
R19 1/6W 2.2k
R18 1/6W 20k
C10 3.3/50
R21 1/6W 1k
R20 1/6W 100k
R10b
C5b
R9b
R11b
R12b
C8 0.0056 (J)
R17 1/6W 4.7k
R18b
R19b
R20b
R14b
R13b
C6b
R15b
R16b
C10b
R21b
+15V
-15V
15.8V
-15.5V
0.1V
TR10 2SA1115 (E, F, G)
TR11 2SA1115 (E, F, G)
R23 4.7k
R22 4.7k
R24 1/6W 12k
R26 1/6W 12k
R25 1/6W 4.7k
R27 1/6W 4.7k
IC8 BA6229
C12 0.01 (Z)
C11 0.047 (Z)
R28 10 (FS)
D1 HZ5B2
-11.4V
-11.8V
-11.9V
-12.1V
TO MAIN VR PCB AA-V335 J402 AA-V435 J502
W16
+15V
GND
-15V
W15
LEFT
GND
RIGHT
TO VD2 PCB J303
W4
RIGHT
GND
LEFT
TO TUNER PCB P1
J6
A.SW CE
DATA
CLK
L OUT
GND
R OUT
+14V
R79 2k
R78 2k
R77 2k
C2 0.01 (Z)
R2 1/6W 4.7k
C1 0.01(Z)
R1 1/6W 4.7k
IC2 LC7821
IC1 LC7821
CK
DI
CE
0V
R3b
C3b
R4b
IC3 M5218L
R5b
R7b
R6b
C4b
R8b
C4 1/50
R6 1/6W 1k
R7 1/6W 100k
IC4 M5218L
R8 1/6W 470
R4 1/6W 100k
C3 1/50
R3 1/6W 1k
R5 1/6W 470
J3
VCR1 (R)
TAPE (R)
DAT (R)
VCR2 (R)
GND
GND
VCR2 (L)
DAT (L)
TAPE (L)
VCR1 (L)
TO PIN JACK PCB (P103)
J2
VD1 (R)
CD (R)
VCR1 (R)
TAPE (R)
DAT (R)
VCR2 (R)
GND
GND
VCR2 (L)
DAT (L)
TAPE (L)
VCR1 (L)
CD (L)
VD1 (L)
TO PIN JACK PCB (P102)
J1
+15V
PHONO (R)
GND
GND
PHONO (L)
-15V
TO PIN JACK PCB (P101)
C39 100/10
R29 1k
C13 470P (K)
C13b
R29b
A
B
C
D
E
F
1
2
3
4
5
6
7
8


AA-V435: TO SURROUND PREPCB P1
AA-V335: NON USE
TO PIN JACK PCB (P105)
TO VD2 PCB J302
TO CONTROL PCB W2
TO SP SW PCB W13
TO CONTROL PCB W3
TO LOUDNESS PCB (J102)
L CH
R CH
+15V
GND
-15V
GND
+12V
+6V
+3V
VCR1
VD1
VCR2
VD2 (V)
DATA
W8
J8
J5
W2
J12
W13
J10
-30V
TR7 2SD1762 (E, F)
TR5 2SD1762 (E, F)
TR4 2SD1762 (E, F)
TR9 2SB1187 (E, F)
TR8 2SB1187 (E, F)
TR6 2SB1185 (E. F)
FR5 4.7
FR4 4.7
FR2 4.7
FR1 4.7
FR3 4.7
R75 1k
R68 2W 120 (FS)
R67 2k
R63 1.2k
R60 1.2k
R62 1/2W 1.8k (FS)
R59 1/2W 1.8k (FS)
R72 3.6k
R70 1/2W 3.9k (FS)
R65 1.2k
R64 1/2W 1.8k (FS)
C39 100/10
D21 HZ3B3
C31 100/16
D11 HZ6C2
C38 330/16
D10 HZ12B2
D18 1SS131
D16 1SS131
D8 HZ15-2L
C37 47/25
D15 1SS131
D7 HZ16-1L
C29 47/25
D20 1SS131
D13 HZ12B2
D19 1SS131
D12 HZ24-3
D17 1SS131
D9 HZ16-1L
C30 47/25
W5
+6V
GND
DATA
-35V
+20V
GND
-20V
AC
TO POWER SUPPLY PCB J502
W6
+B
+B
GND
GND
GND
GND
-B
-B
TO POWER SUPPLY PCB J501
IC9 AA-V435 STK4046V AA-V335 STK4044V
IC9b AA-V435 STK4046V AA-V335 STK4044V
R29 1k
C14 4.7/50
C13 470P (K)
R30 56k
*C20
R34 100 (FS)
C33 47P
R74 1k
C32 470P (K)
C16 100P (K)
R36 to R39 5W 0.22 (K)
AA-V435 ONLY
AA-V335
C18 0.001 (K)
C19 100P (K)
C17 1/50
R32 56k
R35 100 (FS)
*R31
C15 100/25
R33 10k
*C21
*C36
*C36b
*C35
R40 5W 0.22 (K)
L1 2.2μH (K)
R45 2W 4.7 (FS)
TR1 2SC2240 (GR, BL)
R41 22k
R43 20k
D2 DS446
D3 DS446
R42 10k
R44 10k
C23 0.1 (K)
C22 0.1 (K)
R46 2W 4.7 (FS)
C24 3.3/50
R48 100k
TR2 2SA970 (GR, BL)
R52 24k
D5 DS446
R47 47k
R49 47k
D4 1S2473
C27 10/25
TR3 2SD1762 (E. F)
R54 12k
D6 HZ33-2
FR6 4.7
R55 1/2W 10k (FS)
IC10 μPC1237H
R57 33k
R56 2W 390 (FS)
R51 7.5k
C25 330P/10 (M)
C26 0.022 (Z)
C28 100/16
R50 22k
D14 DS446
RL1 G5R-2282P
W7
GND
LEFT
RIGHT
GND
TO SP SW PCB W7
+15V
PHONO (R)
GND
GND
PHONO (L)
-15V
TO PIN JACK PCB (P101)

*	AA-V335	AA-V435
C20, 21	100P/63 (M)	100P/80 (M)
C35, 36	10/63	10/100
R31	750	680

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (J)
ALL CAPACITORS IN μF 50WV (M)

*INDICATED VOLTAGES ARE MEASURED IN PHONO MODE AND VOLUME IS SET TO MINIMUM.

*INDICATED VOLTAGES IN ( ) FOR MODEL AA-V335.

*INDICATED SIGNAL·LINE IS IN PHONO MODE AND LEFT CHANNEL ONLY.

▬ : B (POWER SUPPLY) LINE

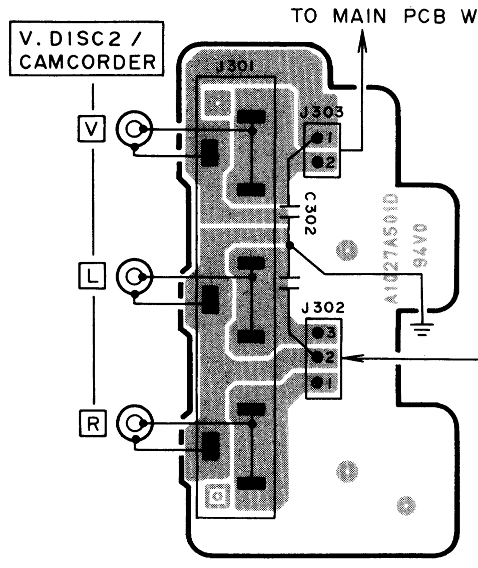
▬ : SIGNAL LINE

WARNING: ⚠ AND ▨ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

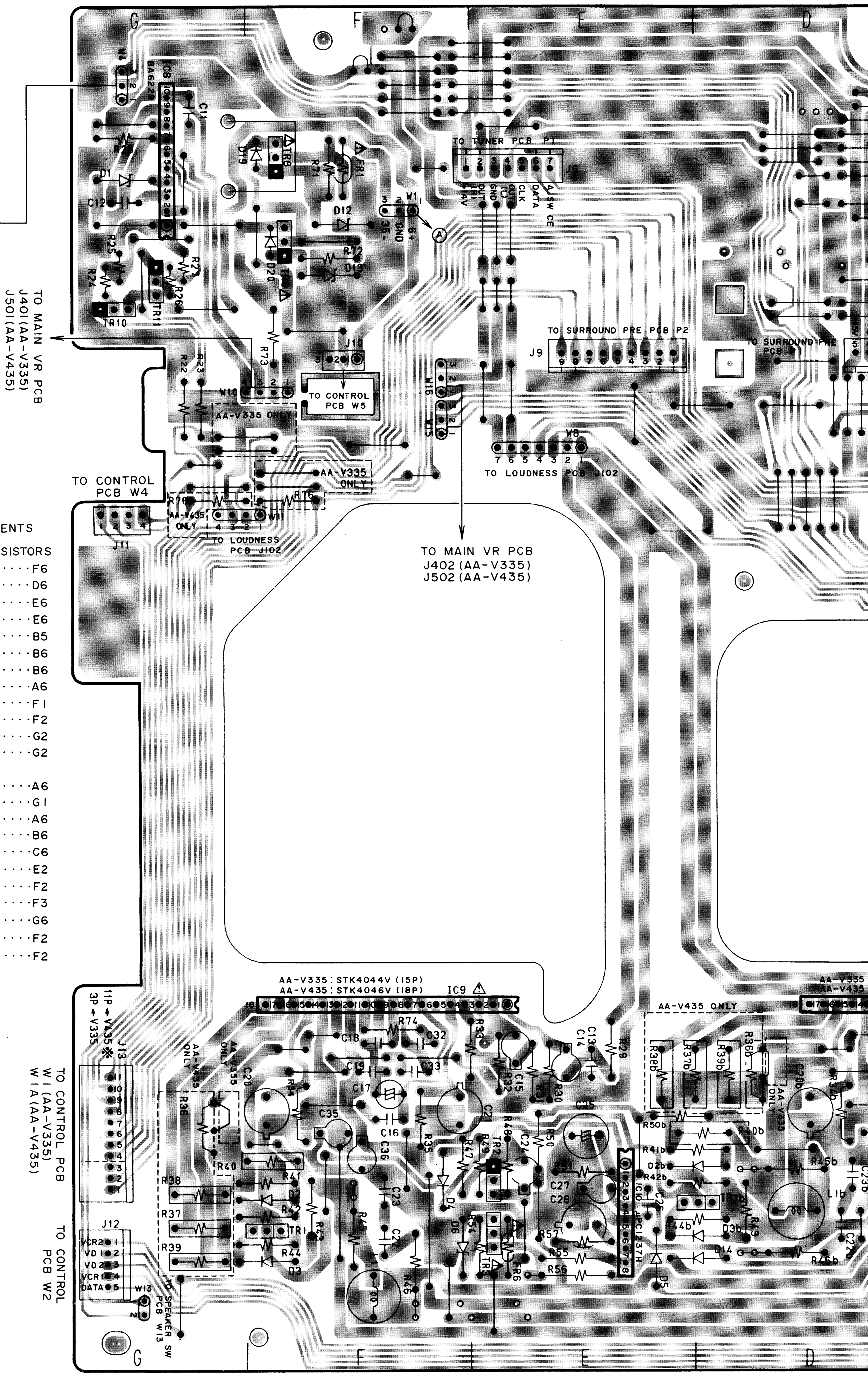
AVERTISSMENT: ⚠ ET ▨ , ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ, POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

AA-V335/V435
MAIN PCB
SCHEMATIC DIAGRAM

NO.5-2 A102802M4


TO MAIN PCB W2
V.DISC2 / CAMCORDER
J301
J303
J302
C302
V
L
R
A1027A501D

VD2 PCB
A1027A501D


G
F
E
D
W4
IC8 BA6229
C1
R28
D1
C12
R25
R24
R27
R26
TR10
TR11
D19
TR8
R71
FR1
D12
R72
D13
TR9
D20
R73
W1
3 2 1
35- GND 6+
TO TUNER PCB P1
J6
+14V
OUT (R)
GND
OUT (L)
CLK
DATA
A.SW CE
TO SURROUND PRE PCB P2
J9
TO SURROUND PRE PCB P1
J10
TO CONTROL PCB W5
W10
R22
R23
AA-V335 ONLY
W16
W15
W8
TO LOUDNESS PCB J102
AA-V335 ONLY
R76
R76
AA-V435 ONLY
W11
TO LOUDNESS PCB J102
TO CONTROL PCB W4
J11
TO MAIN VR PCB
J401 (AA-V335)
J501 (AA-V435)
TO MAIN VR PCB
J402 (AA-V335)
J502 (AA-V435)
AA-V335 : STK4044V (15P)
AA-V435 : STK4046V (18P)
IC9
AA-V435 ONLY
11P→V435※
3P→V335
J13
TO CONTROL PCB
W1 (AA-V335)
W1A (AA-V435)
J12
VCR2
VD1
VD2
VCR1
DATA
TO CONTROL PCB W2
W13
TO SPEAKER SW PCB W13
R36
R38
R37
R39
R40
R41
R42
R43
R44
D2
D3
TR1
C20
R34
C35
C36
C18
C19
C17
C16
R74
C32
C33
R35
R45
C23
C22
L1
R46
R33
R32
C15
R31
R30
C21
R48
R49
TR2
R47
D4
D6
R54
TR3
FR6
C24
R50
C25
R51
C27
C28
R57
R55
R56
C14
C13
R29
IC10 μPC1237H
C26
D5
R38b
R37b
R39b
R36b
C20b
R34b
R50b
R40b
R41b
D2b
R42b
TR1b
R44b
D3b
D14
R43
R45b
L1b
C22b
R46b
C23b

MAIN PCB A1027A501A

LOCATION OF COMPONENTS

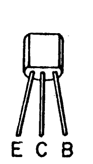
ICS	
IC1	A3
IC2	C3
IC3	A4
IC4	A4
IC5	B5
IC6	B1
IC7	C1
IC8	G1
IC9	F5
IC9b	C5
IC10	E6

TRANSISTORS	
TR1	F6
TR1b	D6
TR2	E6
TR3	E6
TR4	B5
TR5	B6
TR6	B6
TR7	A6
TR8	F1
TR9	F2
TR10	G2
TR11	G2

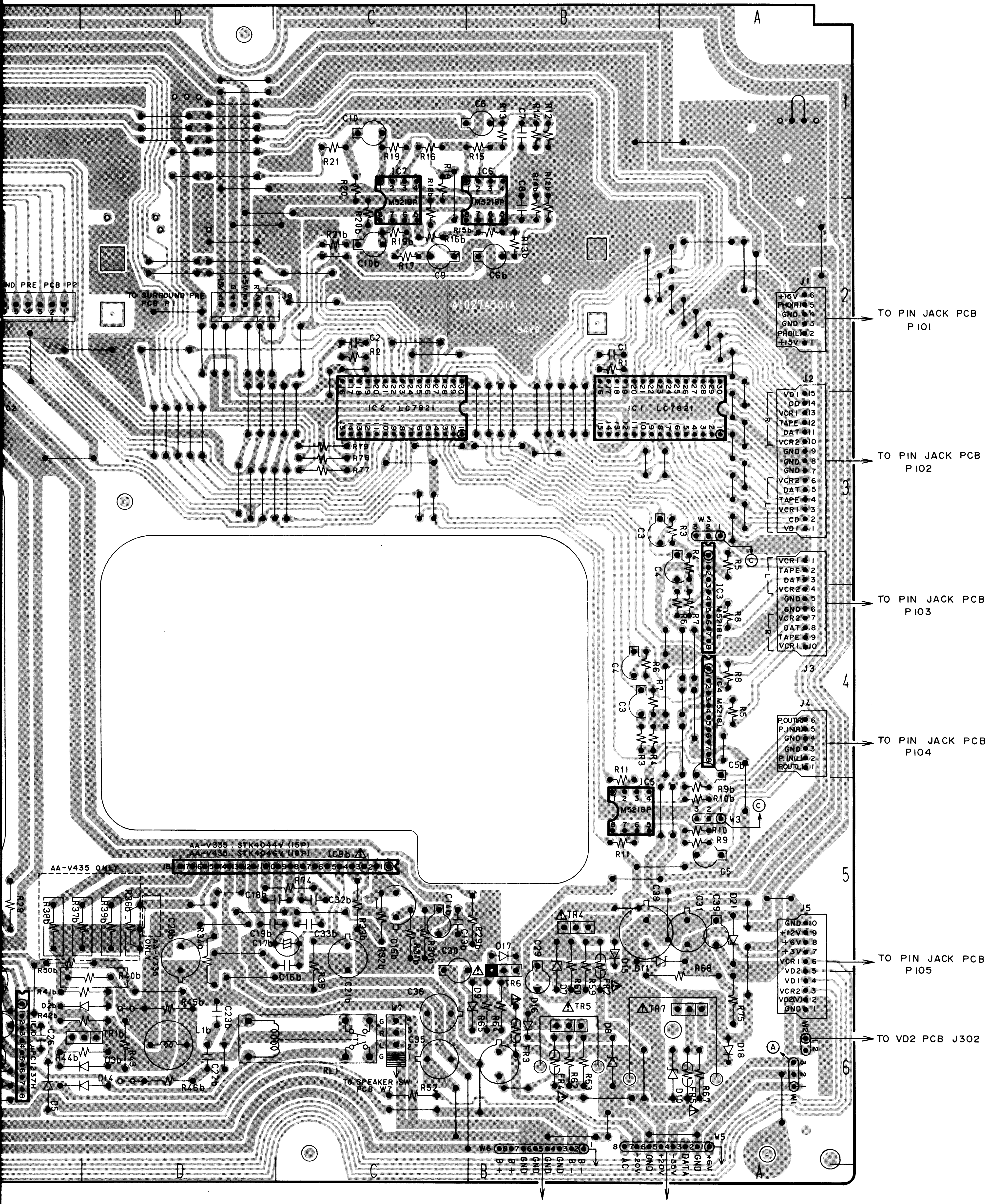
CONNECTORS			
J1	A2	W2	A6
J2	A3	W4	G1
J3	A4	W5	A6
J4	A4	W6	B6
J5	A5	W7	C6
J6	E1	W8	E2
J8	D2	W10	F2
J9	E2	W11	F3
J10	F2	W13	G6
J11	G3	W15	F2
J12	G6	W16	F2
J13	G6		

B
■●● PNP TRANSISTOR

B
●●● NPN TRANSISTOR



2SC2240
2SA970

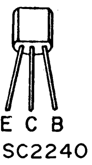

D
C
B
A
1
2
3
4
5
6
A1027A501A
94V0
TO SURROUND PRE PCB P1
ND PRE PCB P2
J8
+15V
GND
+5V
IC7 M5218P
IC6 M5218P
IC2 LC7821
IC1 LC7821
IC3 M5218L
IC4 M5218L
IC5 M5218P
J1
+15V 6
PHO(R) 5
GND 4
GND 3
PHO(L) 2
+15V 1
TO PIN JACK PCB P101
J2
VD1 15
CD 14
VCR1 13
TAPE 12
DAT 11
VCR2 10
GND 9
GND 8
GND 7
VCR2 6
DAT 5
TAPE 4
VCR1 3
CD 2
VD1 1
TO PIN JACK PCB P102
VCR1 1
TAPE 2
DAT 3
VCR2 4
GND 5
GND 6
VCR2 7
DAT 8
TAPE 9
VCR1 10
TO PIN JACK PCB P103
J3
J4
P.OUT(R) 6
P.IN(R) 5
GND 4
GND 3
P.IN(L) 2
P.OUT(L) 1
TO PIN JACK PCB P104
J5
GND 10
+12V 9
+6V 8
+3V 7
VCR1 6
VD2 5
VD1 4
VCR2 3
VD2(V) 2
GND 1
TO PIN JACK PCB P105
W2
TO VD2 PCB J302
W1
W3
AA-V335 : STK4044V (15P)
AA-V435 : STK4046V (18P)
IC9b
AA-V435 ONLY
AA-V335 ONLY
IC10 μPC1237H
TR1b
RL1
L1b
W7
TO SPEAKER SW PCB W7
TR4
TR5
TR6
TR7
W6
B+
B+
GND
GND
GND
B−
B−
W5
AC
−20V
GND
+20V
−35V
DATA
GND
+6V
TO POWER SUPPLY PCB J501
TO POWER SUPPLY PCB J502

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

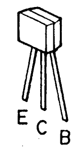
AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

P TRANSISTOR

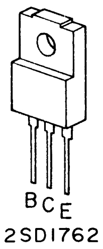
N TRANSISTOR



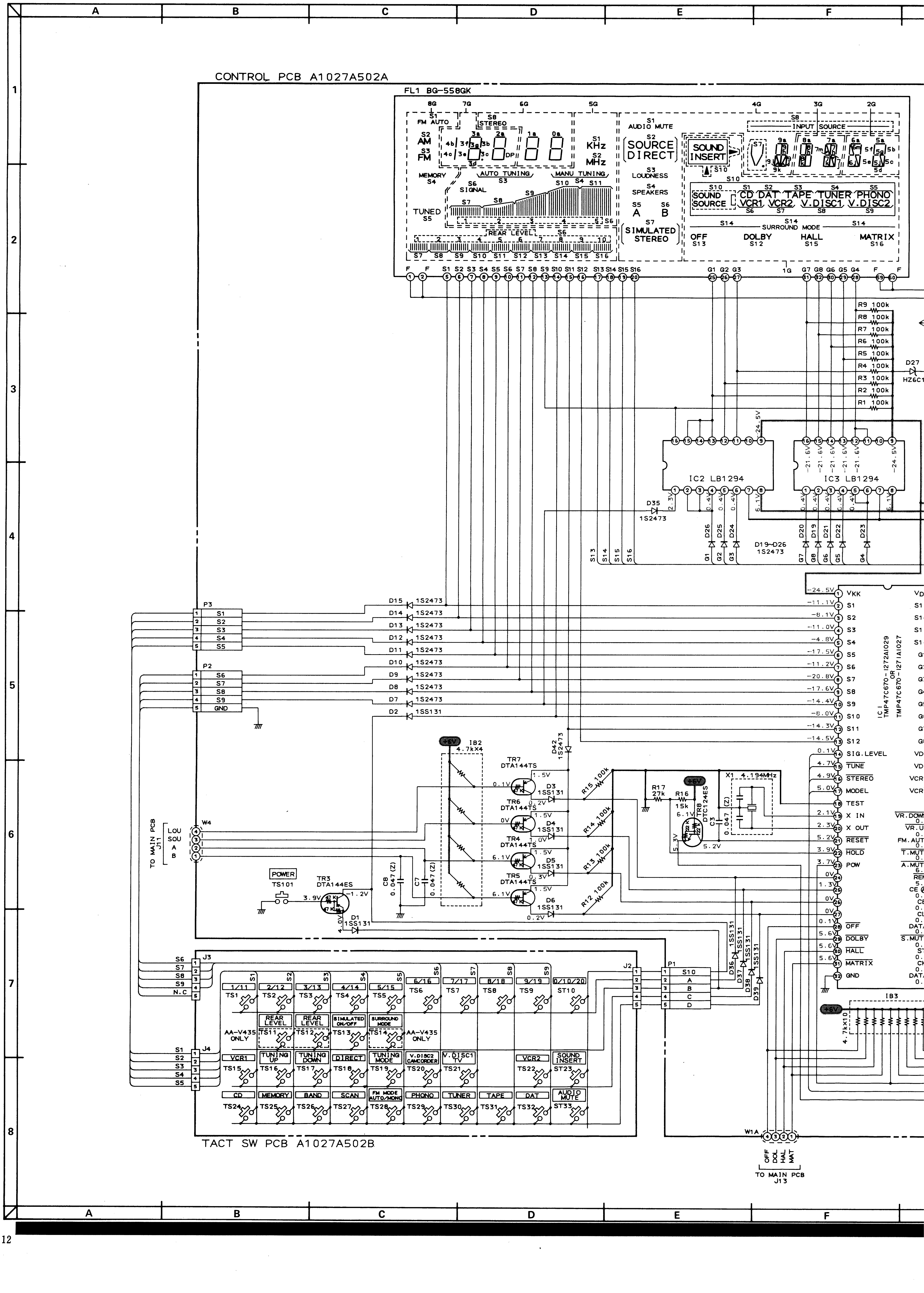
2SC2240
2SA970

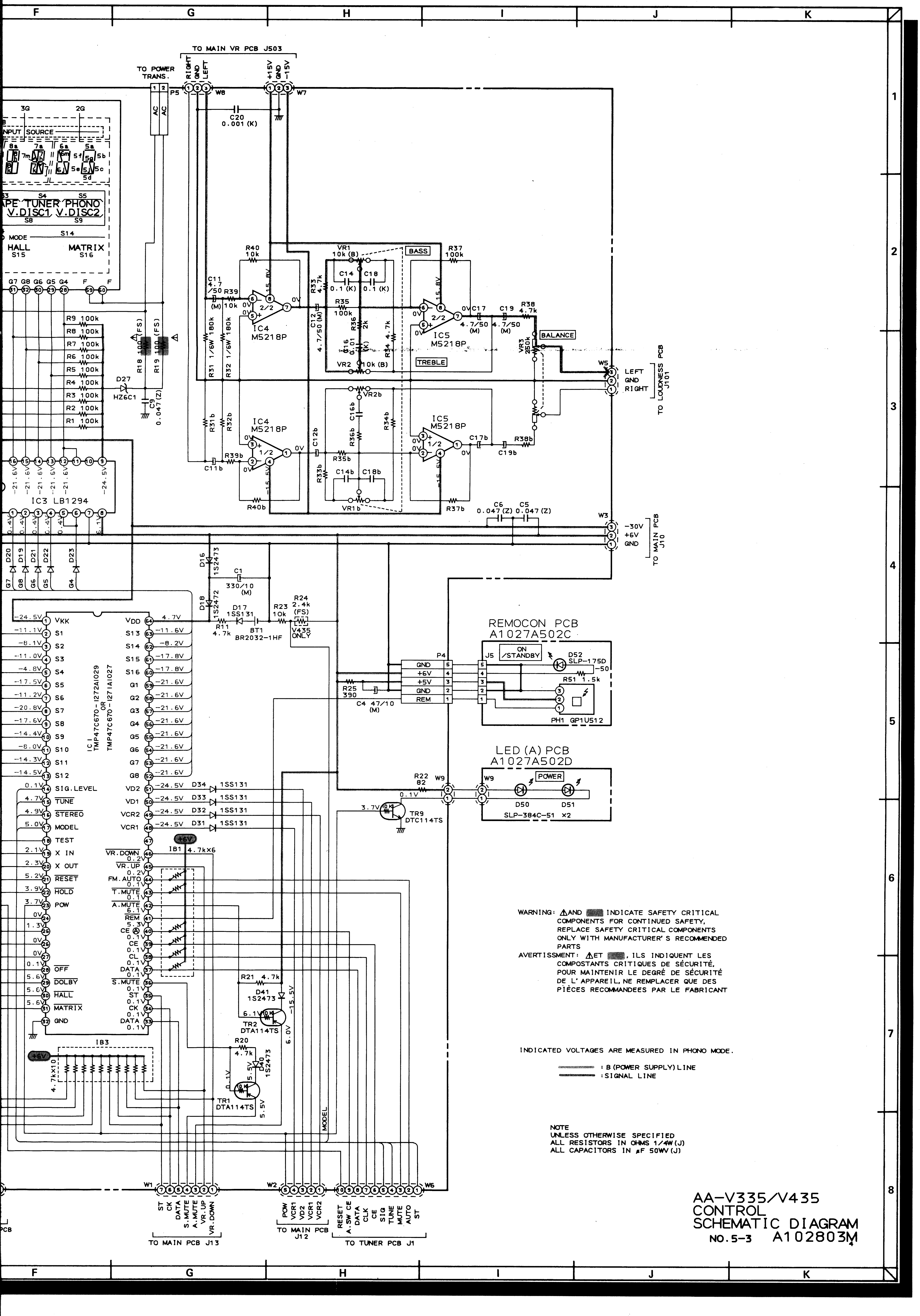


2SA1115



2SD1762
2SB1185
2SB1187


CONTROL PCB A1027A502A
FL1 BG-558GK
FM AUTO
STEREO
AM
FM
MEMORY
SIGNAL
AUTO TUNING
MANU TUNING
TUNED
REAR LEVEL
KHz
MHz
AUDIO MUTE
SOURCE DIRECT
LOUDNESS
SPEAKERS
A B
SIMULATED STEREO
SOUND INSERT
INPUT SOURCE
SOUND SOURCE
CD DAT TAPE TUNER PHONO
VCR1 VCR2 V.DISC1 V.DISC2
SURROUND MODE
OFF
DOLBY
HALL
MATRIX
R9 100k
R8 100k
R7 100k
R6 100k
R5 100k
R4 100k
R3 100k
R2 100k
R1 100k
D27
HZ6C1
IC2 LB1294
IC3 LB1294
D35
1S2473
D19~D26
1S2473
P3
P2
GND
D15 1S2473
D14 1S2473
D13 1S2473
D12 1S2473
D11 1S2473
D10 1S2473
D9 1S2473
D8 1S2473
D7 1S2473
D2 1SS131
D42
1S2473
IC1
TMP47C670-1272A1029
OR
TMP47C670-1271A1027
VKK
SIG.LEVEL
TUNE
STEREO
MODEL
TEST
X IN
X OUT
RESET
HOLD
POW
OFF
DOLBY
HALL
MATRIX
GND
+6V
IB2
4.7kX4
TR7
DTA144TS
TR6
DTA144TS
TR4
DTA144TS
TR5
DTA144TS
D3 1SS131
D4 1SS131
D5 1SS131
D6 1SS131
R15 100k
R14 100k
R13 100k
R12 100k
R17 27k
R16 15k
TR8 DTC124ES
X1 4.194MHz
C3 0.047 (Z)
C8 0.047 (Z)
C7 0.047 (Z)
TO MAIN PCB J11
LOU
SOU
A
B
W4
POWER
TS101
TR3
DTA144ES
D1
1SS131
D36 1SS131
D37 1SS131
D38 1SS131
D39
J3
J4
J2
P1
S10
A
B
C
D
N.C
1/11 2/12 3/13 4/14 5/15 6/16 7/17 8/18 9/19 0/10/20
TS1 TS2 TS3 TS4 TS5 TS6 TS7 TS8 TS9 ST10
REAR LEVEL
REAR LEVEL
SIMULATED ON/OFF
SURROUND MODE
AA-V435 ONLY
TS11 TS12 TS13 TS14
VCR1 TUNING UP TUNING DOWN DIRECT TUNING MODE V.DISC2 CAMCORDER V.DISC1 TV VCR2 SOUND INSERT
TS15 TS16 TS17 TS18 TS19 TS20 TS21 TS22 ST23
CD MEMORY BAND SCAN FM MODE AUTO/MONO PHONO TUNER TAPE DAT AUDIO MUTE
TS24 TS25 TS26 TS27 TS28 TS29 TS30 TS31 TS32 ST33
TACT SW PCB A1027A502B
IB3
4.7kX10
W1A
OFF DOL HAL MAT
TO MAIN PCB J13
A B C D E F
1 2 3 4 5 6 7 8


F
G
H
I
J
K
1
2
3
4
5
6
7
8
TO MAIN VR PCB J503
TO POWER TRANS.
RIGHT
GND
LEFT
+15V
GND
−15V
P5
W8
W7
AC
AC
C20 0.001 (K)
INPUT SOURCE
3G
2G
TAPE TUNER PHONO
V.DISC1 V.DISC2
S4
S5
S8
S9
MODE
S14
HALL
S15
MATRIX
S16
G7 G8 G6 G5 G4
F
F
R9 100k
R8 100k
R7 100k
R6 100k
R5 100k
R4 100k
R3 100k
R2 100k
R1 100k
R18 100 (FS)
R19 100 (FS)
D27 HZ6C1
C9 0.047 (Z)
IC3 LB1294
−21.6V
−24.5V
D20
D19
D21
D22
D23
R40 10k
C11 4.7/50 (M)
R39 10k
R31 1/6W 180k
R32 1/6W 180k
IC4 M5218P
2/2
1/2
0V
15.8V
−15.5V
R33 4.7k
C12 4.7/50 (M)
R35 100k
R36 2k
C16 0.01
R34 4.7k
VR1 10k (B)
C14 0.1 (K)
C18 0.1 (K)
VR2 10k (B)
BASS
TREBLE
R37 100k
IC5 M5218P
C17 4.7/50 (M)
C19 4.7/50 (M)
R38 4.7k
BALANCE
VR3 250k
W5
LEFT
GND
RIGHT
TO LOUDNESS PCB J101
R31b
R32b
R39b
C11b
R40b
C12b
R35b
R36b
C16b
R34b
R33b
C14b
C18b
VR1b
VR2b
R37b
C17b
C19b
R38b
C6 0.047 (Z)
C5 0.047 (Z)
W3
−30V
+6V
GND
TO MAIN PCB J10
D16 1S2473
C1 330/10 (M)
D18 1S2472
D17 1SS131
R11 4.7k
BT1 BR2032-1HF
R23 10k
R24 2.4k (FS)
V435 ONLY
IC1 TMP47C670-1272A1029 OR TMP47C670-1271A1027
VKK
S1
S2
S3
S4
S5
S6
S7
S8
S9
S10
S11
S12
SIG.LEVEL
TUNE
STEREO
MODEL
TEST
X IN
X OUT
RESET
HOLD
POW
OFF
DOLBY
HALL
MATRIX
GND
VDD
S13
S14
S15
S16
G1
G2
G3
G4
G5
G6
G7
G8
VD2
VD1
VCR2
VCR1
VR.DOWN
VR.UP
FM.AUTO
T.MUTE
A.MUTE
REM
CE Ⓐ
CE
CL
DATA
S.MUTE
ST
CK
DATA
D34 1SS131
D33 1SS131
D32 1SS131
D31 1SS131
+6V
IB1 4.7k×6
IB3
4.7k×10
R21 4.7k
D41 1S2473
TR2 DTA114TS
R20 4.7k
D40 1S2473
TR1 DTA114TS
R25 390
C4 47/10 (M)
P4
GND
+6V
+5V
GND
REM
REMOCON PCB A1027A502C
J5
ON /STANDBY
D52 SLP-175D
R51 1.5k
PH1 GP1U512
R22 82
W9
TR9 DTC114TS
LED (A) PCB A1027A502D
POWER
D50
D51
SLP-384C-51 ×2
MODEL
W1
ST
CK
DATA
S.MUTE
A.MUTE
VR.UP
VR.DOWN
TO MAIN PCB J13
W2
POW
VCR1
VD2
VCR1
VCR2
TO MAIN PCB J12
W6
RESET
A.SW CE
DATA
CLK
CE
SIG
TUNE
MUTE
AUTO
ST
TO TUNER PCB J1

WARNING: ⚠AND ▨ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

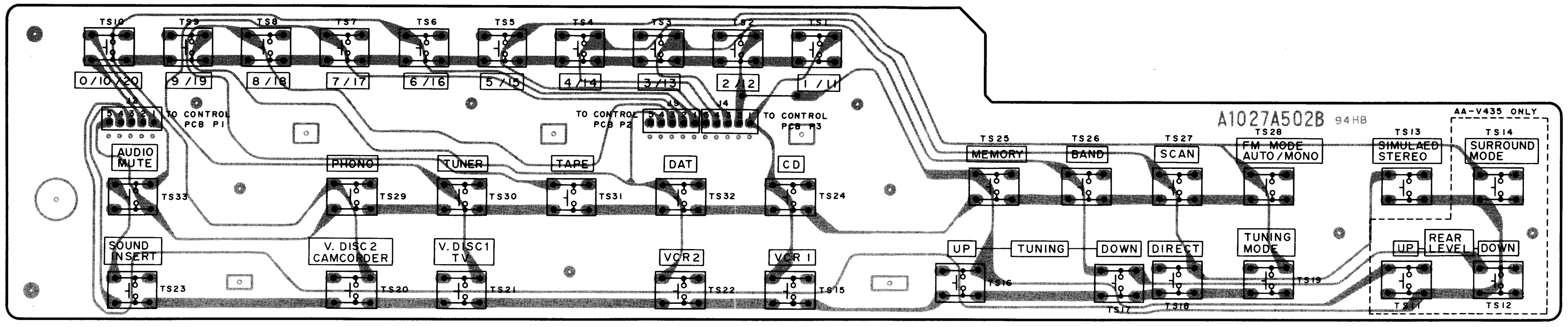
AVERTISSMENT: ⚠ET ▨, ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ, POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

INDICATED VOLTAGES ARE MEASURED IN PHONO MODE.

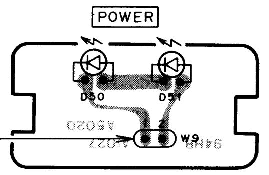
━ : B (POWER SUPPLY) LINE
━ : SIGNAL LINE

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (J)
ALL CAPACITORS IN µF 50WV (J)

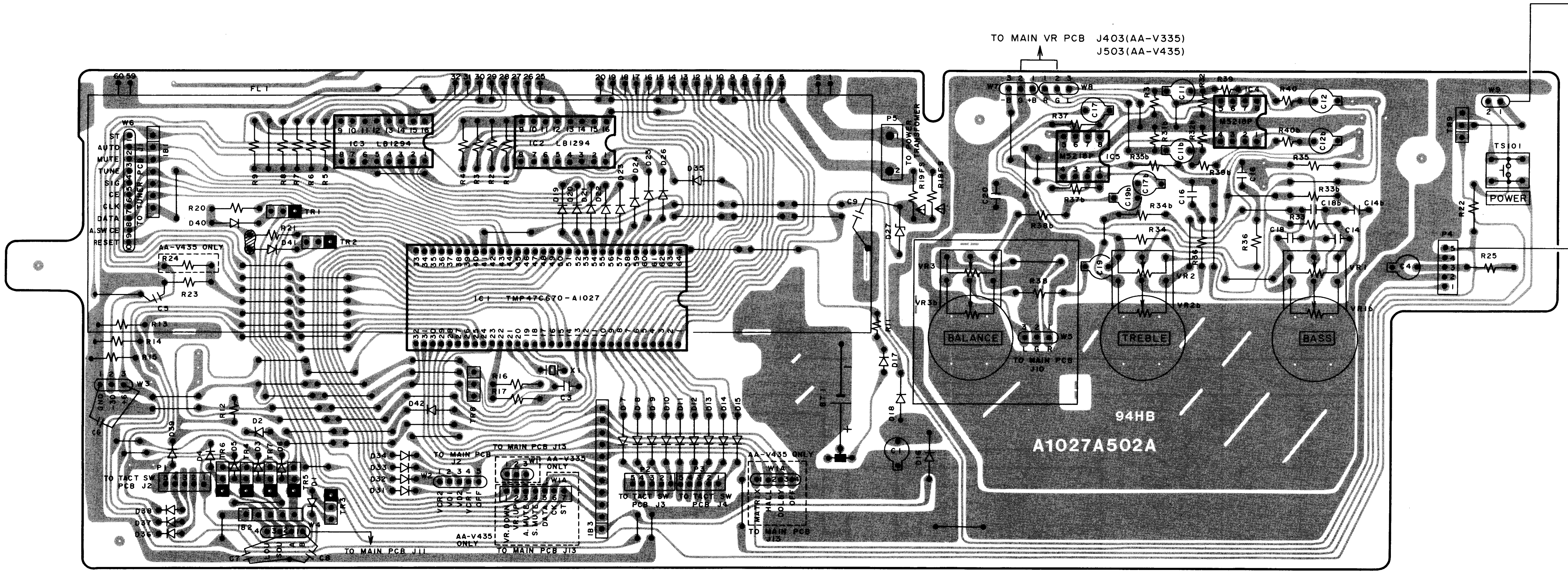
AA-V335/V435
CONTROL
SCHEMATIC DIAGRAM
NO.5-3 A102803M


TS10
TS9
TS8
TS7
TS6
TS5
TS4
TS3
TS2
TS1
0/10/20
9/19
8/18
7/17
6/16
5/15
4/14
3/13
2/12
1/11
TO CONTROL PCB P1
TO CONTROL PCB P2
TO CONTROL PCB P3
A1027A502B 94HB
AA-V435 ONLY
TS25
TS26
TS27
TS28
TS13
TS14
MEMORY
BAND
SCAN
FM MODE AUTO/MONO
SIMULAED STEREO
SURROUND MODE
AUDIO MUTE
PHONO
TUNER
TAPE
DAT
CD
TS33
TS29
TS30
TS31
TS32
TS24
SOUND INSERT
V. DISC 2 CAMCORDER
V. DISC1 TV
VCR2
VCR 1
UP
TUNING
DOWN
DIRECT
TUNING MODE
UP
REAR LEVEL
DOWN
TS23
TS20
TS21
TS22
TS15
TS16
TS17
TS18
TS19
TS11
TS12

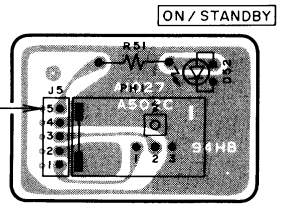
TACT SW PCB A1027A502B


POWER
D50
D51
W9

LED (A) PCB
V1027A502D


TO MAIN VR PCB J403(AA-V335)
J503(AA-V435)
FL1
IC3 LB1294
IC2 LB1294
IC1 TMP47C670-A1027
ST
AUTO
MUTE
TUNE
SIG
CE
CLK
DATA
A.SW CE
RESET
TO TUNER PCB
AA-V435 ONLY
TR1
TR2
TO POWER TRANSFORMER
IC4 M5218P
IC5 M5218P
BALANCE
TREBLE
BASS
TO MAIN PCB J10
POWER
TS101
94HB
A1027A502A
TO TACT SW PCB J2
TO MAIN PCB J2
TO MAIN PCB J11
TO MAIN PCB J13
AA-V335 ONLY
AA-V435 ONLY
TO TACT SW PCB J3
TO TACT SW PCB J4
TO MAIN PCB J15
TO MATRIX
HALL
DOLBY
OFF

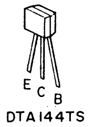
CONTROL PCB A1027A502A


ON/STANDBY
R51
PH127
A502C
J5
94HB

REMOTE CONTROL PCB
A1027A502C

B ■●● PNP TRANSISTOR

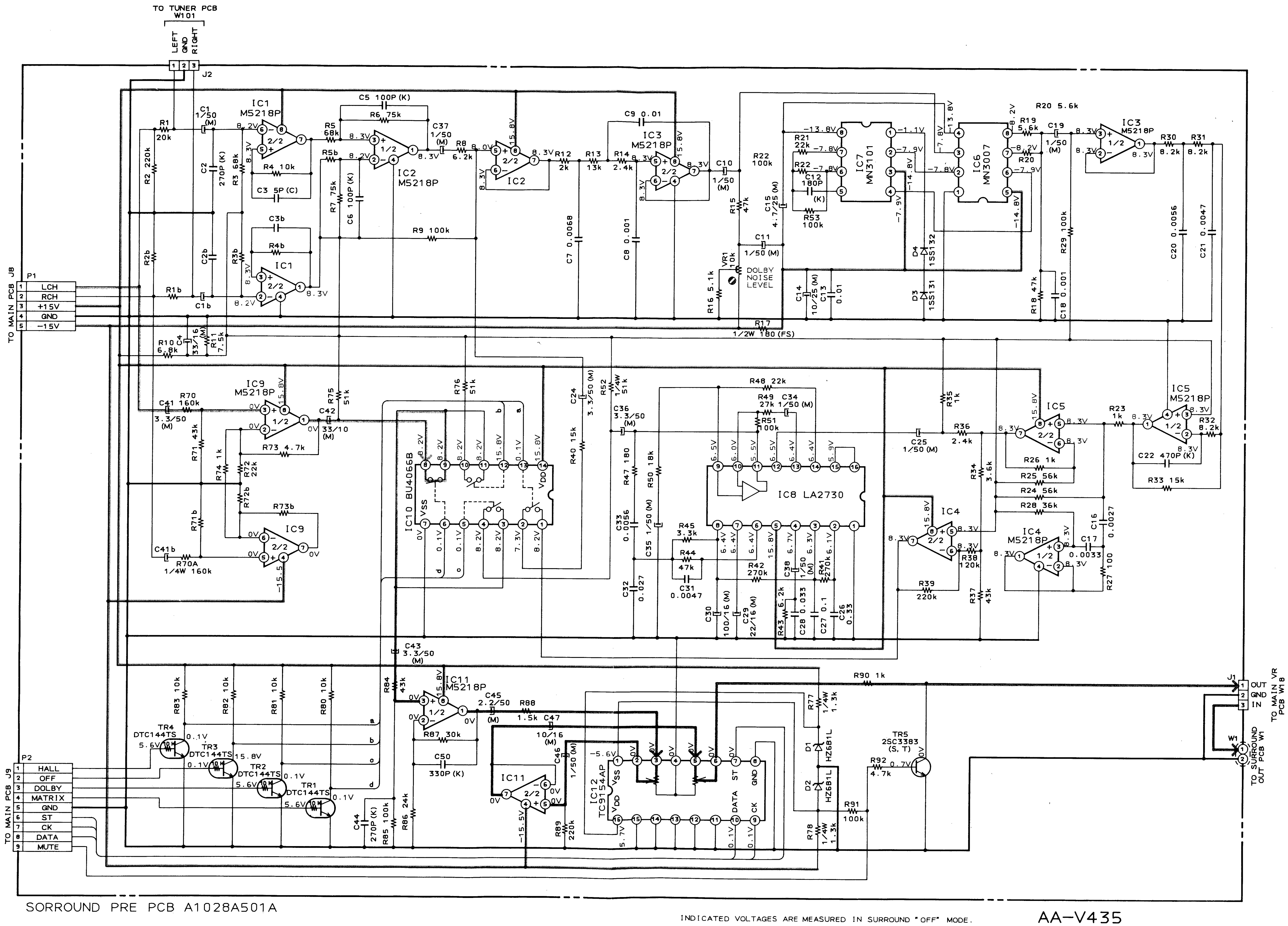
B ●●● NPN TRANSISTOR



DTA144TS
DTA144ES
DTA114TS
DTC114TS
DTC124ES

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

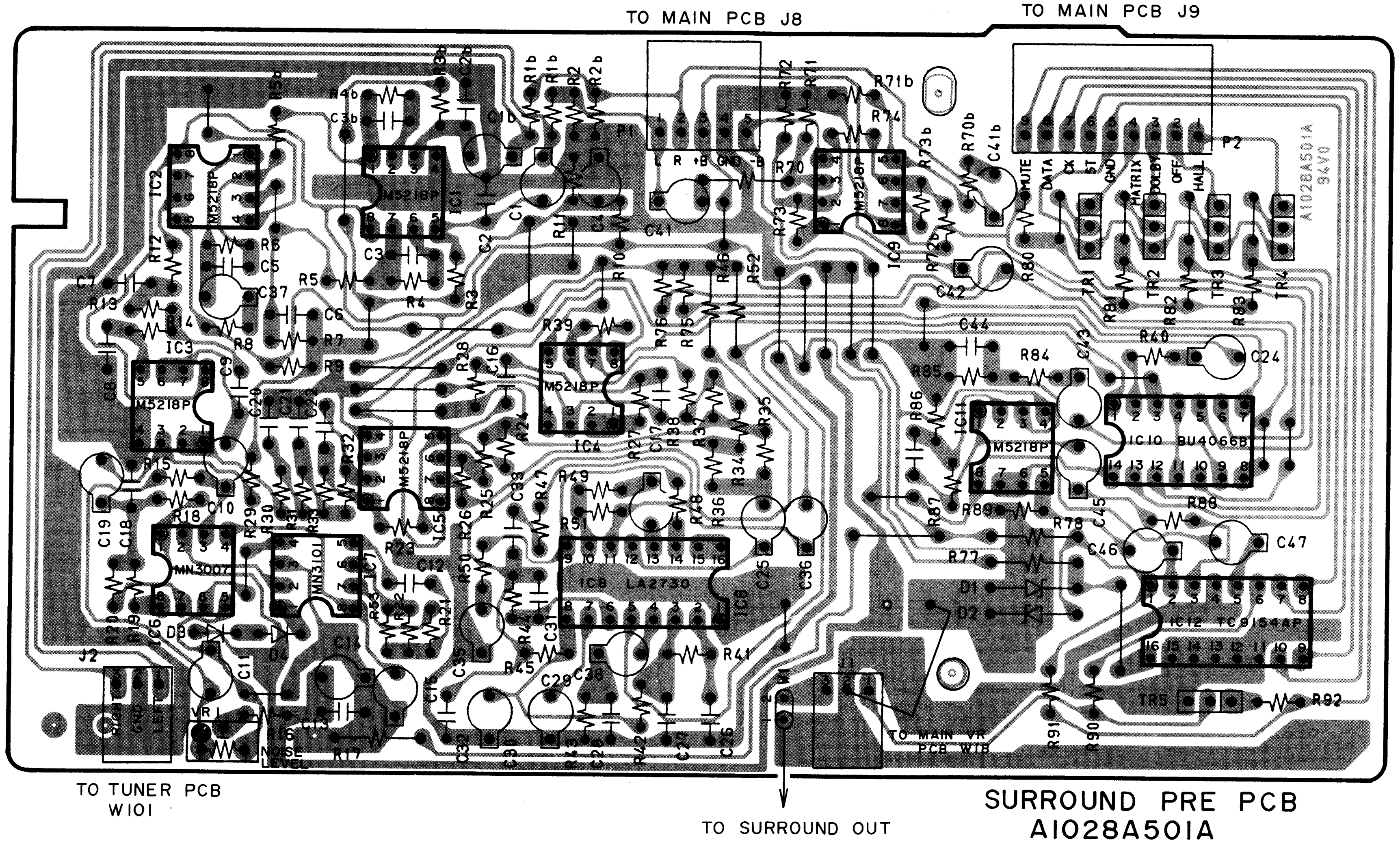

TO TUNER PCB W101
LEFT
GND
RIGHT
J2
IC1 M5218P
IC2 M5218P
IC3 M5218P
IC4 M5218P
IC5 M5218P
IC9 M5218P
IC11 M5218P
IC7 MN3101
IC6 MN3007
IC8 LA2730
IC10 BU4066B
IC12 TC9154AP
TR1 DTC144TS
TR2 DTC144TS
TR3 DTC144TS
TR4 DTC144TS
TR5 2SC3383 (S, T)
D1 HZ6B1L
D2 HZ6B1L
D3 1SS131
D4 1SS132
VR1 10k DOLBY NOISE LEVEL
P1
LCH
RCH
+15V
GND
−15V
TO MAIN PCB J8
P2
HALL
OFF
DOLBY
MATRIX
GND
ST
CK
DATA
MUTE
TO MAIN PCB J9
J1
OUT
GND
IN
TO MAIN VR PCB W18
W1
TO SURROUND OUT PCB W1
R17 1/2W 180 (FS)
SORROUND PRE PCB A1028A501A

══ : B (POWER SUPPLY) LINE
━━ : SIGNAL LINE

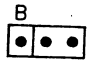
INDICATED VOLTAGES ARE MEASURED IN SURROUND "OFF" MODE.

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W (J)
ALL CAPACITORS IN μF 50WV (J)

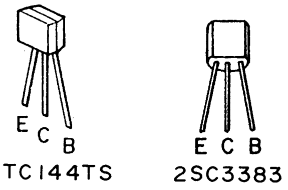
AA-V435
SURROUND PRE PCB
SCHEMATIC DIAGRAM
NO.5-4 A102804M


TO MAIN PCB J8
TO MAIN PCB J9
L R +B GND -B
MUTE DATA CK ST GND MATRIX DOLBY OFF HALL
P1
P2
A1028A501A 94V0
IC2 M5218P
IC1 M5218P
IC3 M5218P
IC4 M5218P
IC5 M5218P
IC6 MN3007
IC7 MN3101
IC8 LA2730
IC9 M5218P
IC10 BU4066B
IC11 M5218P
IC12 TC9154AP
TR1
TR2
TR3
TR4
TR5
D1
D2
J1
J2
VR1
NOISE LEVEL
TO MAIN VR PCB W1B
TO TUNER PCB W101
TO SURROUND OUT PCB W1

SURROUND PRE PCB
A1028A501A
(MODEL AA-V435 ONLY)

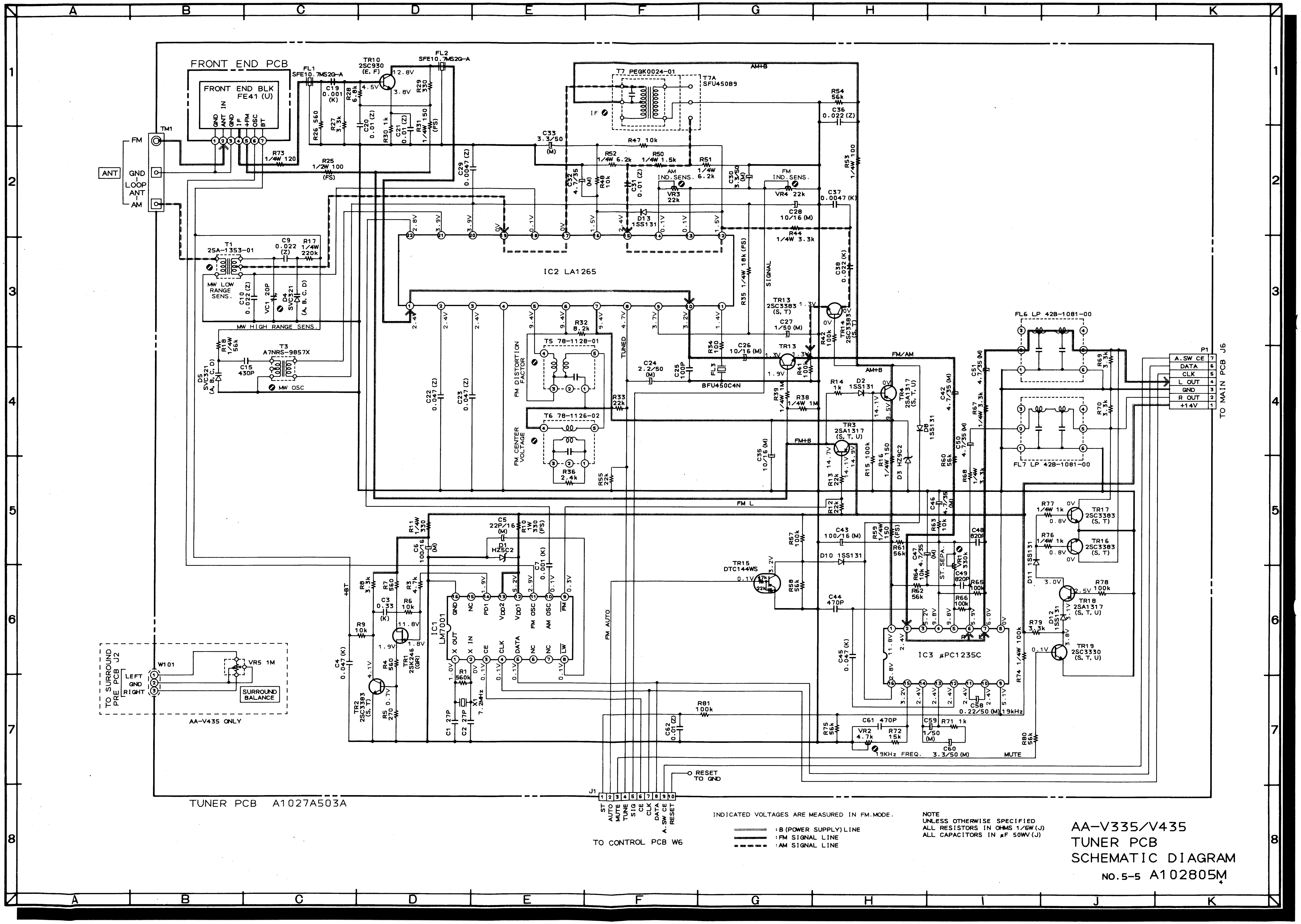


NPN TRANSISTOR


E
C
B
DTC144TS
E C B
2SC3383

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY,
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL,
NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

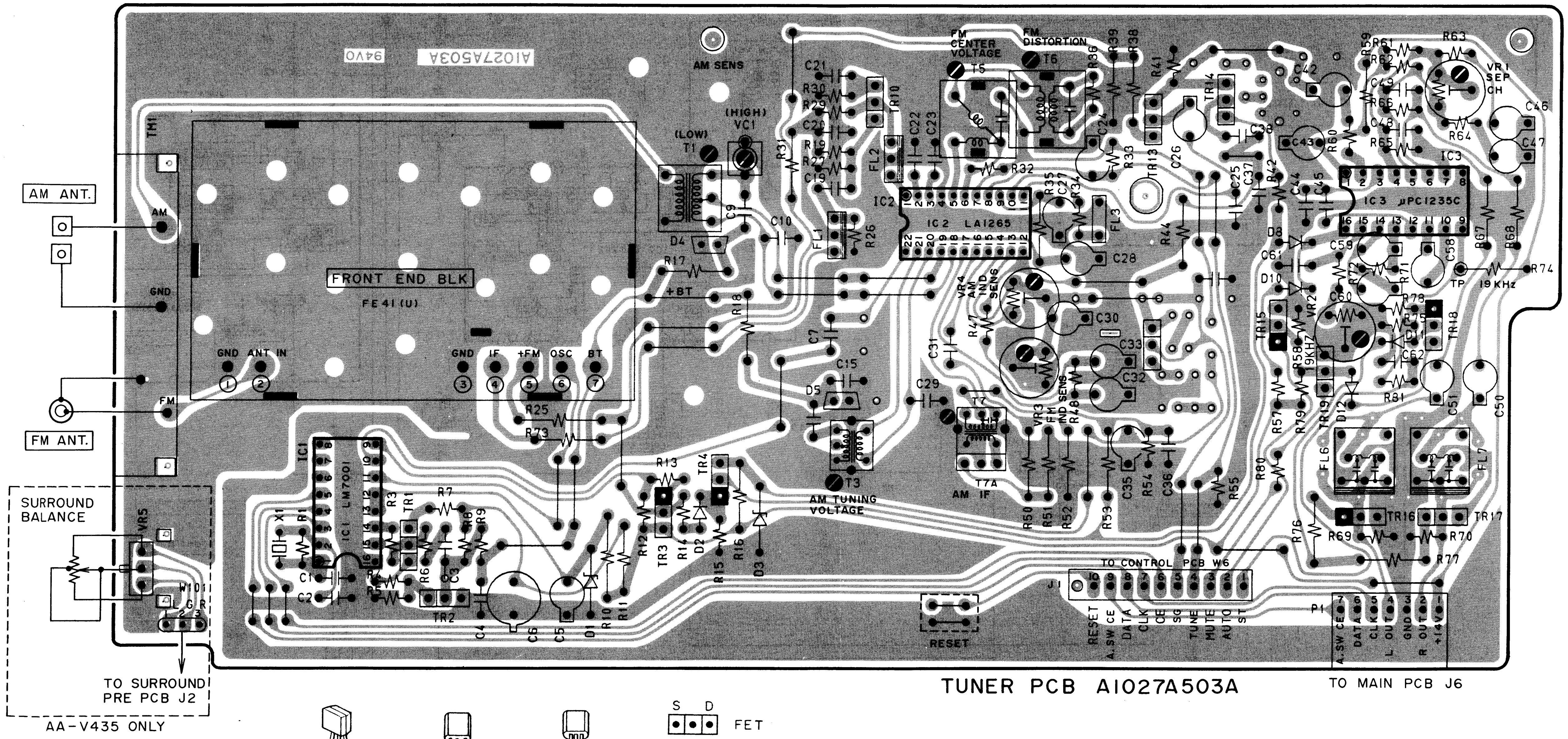

FRONT END PCB
FRONT END BLK FE41 (U)
GND ANT GND IN IF +FM OSC BT
FL1 SFE10.7MS2G-A
FL2 SFE10.7MS2G-A
TR10 2SC930 (E, F)
TM1
ANT
FM
GND
LOOP ANT
AM
R73 1/4W 120
R25 1/2W 100 (FS)
T1 25A-1353-01
MW LOW RANGE SENS.
MW HIGH RANGE SENS.
T3 A7NRS-9857X
MW OSC
IC2 LA1265
T7 PEGK0024-01
T7A SFU450B9
IF
AM+B
AM IND. SENS.
FM IND. SENS.
VR3 22k
VR4 22k
T5 78-1128-01
FM DISTORTION FACTOR
T6 78-1126-02
FM CENTER VOLTAGE
TUNED
SIGNAL
FL3 BFU450C4N
TR13 2SC3383 (S, T)
TR14 2SC3383 (S, T)
TR4 2SA1317 (S, T, U)
TR3 2SA1317 (S, T, U)
FM/AM
FM+B
FM L
FM AUTO
FL6 LP 428-1081-00
FL7 LP 428-1081-00
P1
A.SW CE
DATA
CLK
L OUT
GND
R OUT
+14V
TO MAIN PCB J6
IC1 LM7001
TR1 2SK246 (GR)
TR2 2SC3383 (S, T)
X1 7.2MHz
TR15 DTC144WS
IC3 µPC1235C
ST. SEPA.
VR1 330k
VR2 4.7k
19KHz FREQ.
MUTE
TR17 2SC3383 (S, T)
TR16 2SC3383 (S, T)
TR18 2SA1317 (S, T, U)
TR19 2SC3330 (S, T, U)
TO SURROUND PRE PCB J2
W101
LEFT
GND
RIGHT
VR5 1M
SURROUND BALANCE
AA-V435 ONLY
TUNER PCB A1027A503A
J1
ST
AUTO
MUTE
TUNE
SIG
CE
CLK
DATA
A.SW CE
RESET
RESET TO GND
TO CONTROL PCB W6

INDICATED VOLTAGES ARE MEASURED IN FM.MODE.

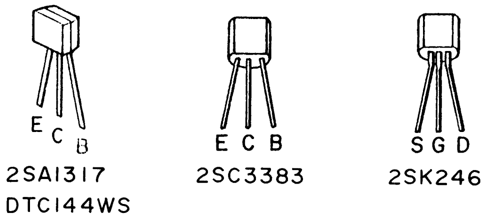
:B (POWER SUPPLY) LINE
:FM SIGNAL LINE
:AM SIGNAL LINE

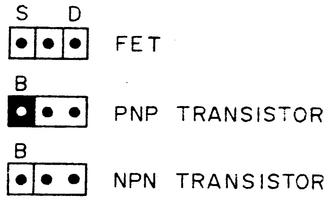
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W (J)
ALL CAPACITORS IN µF 50WV (J)

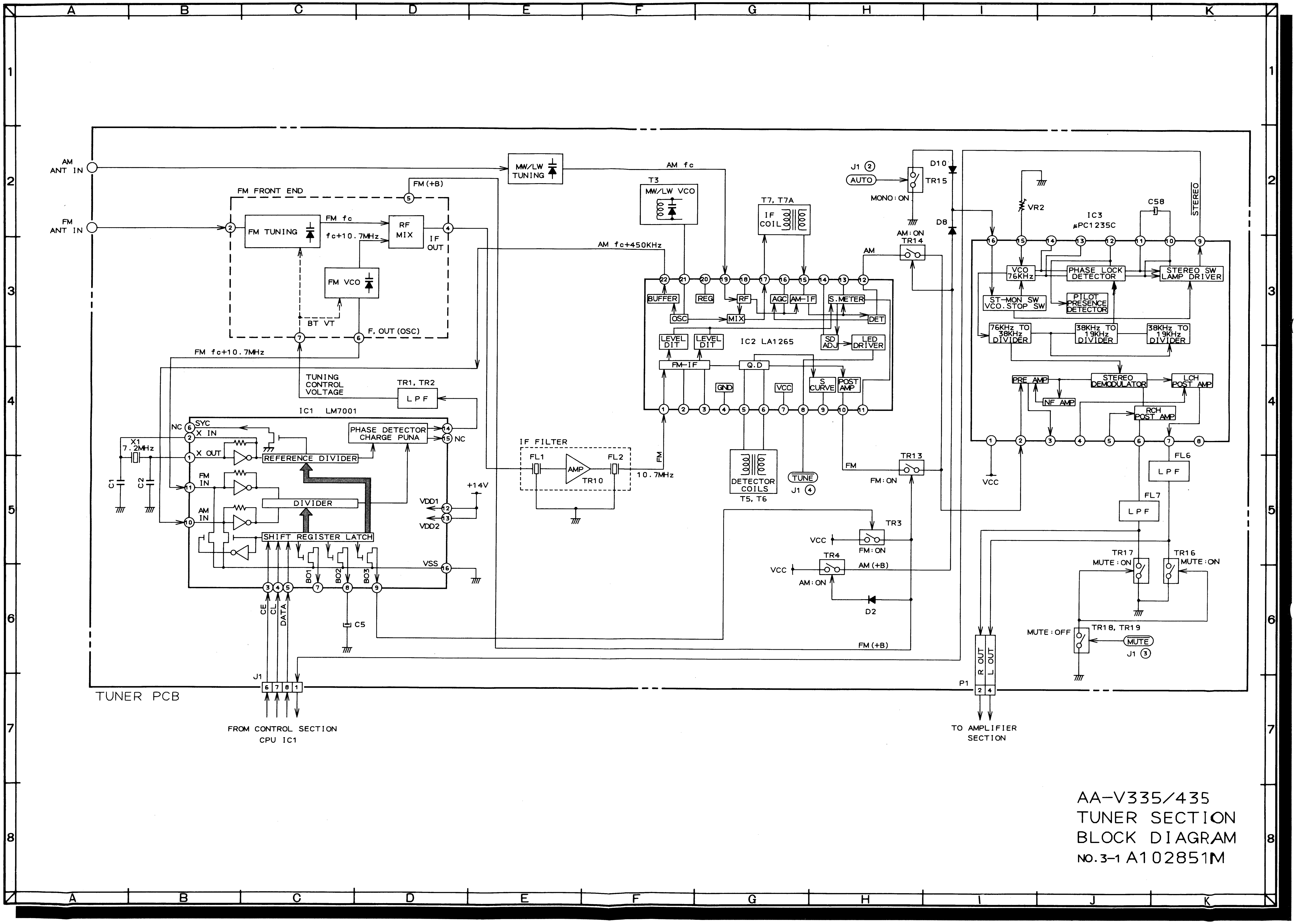
AA-V335/V435
TUNER PCB
SCHEMATIC DIAGRAM
NO.5-5 A102805M


A1027A503A
94V0
AM ANT.
FM ANT.
AM
GND
FM
TM1
FRONT END BLK
FE41(U)
GND ANT IN
GND IF +FM OSC BT
AM SENS
(HIGH) VC1
(LOW) T1
D4
R17
+BT
R18
R25
R73
FM CENTER VOLTAGE
FM DISTORTION
T5
T6
IC2 LA1265
IC3 μPC1235C
VR1 SEP CH
VR2 19KHz
VR3 FM IND SENS
VR4 AM IND SENS
TP 19KHz
T3
AM TUNING VOLTAGE
T7
T7A AM IF
IC1 LM7001
X1
TR1 TR2 TR3 TR4 TR13 TR14 TR15 TR16 TR17 TR18 TR19
FL1 FL2 FL3 FL6 FL7
RESET
J1
TO CONTROL PCB W6
RESET A.SW CE CLK OE SG TUNE MUTE AUTO ST
P1
A.SW CE DATA CLK L OUT GND R OUT +14V
TO MAIN PCB J6
SURROUND BALANCE
VR5
W101
L G R
TO SURROUND PRE PCB J2
AA-V435 ONLY

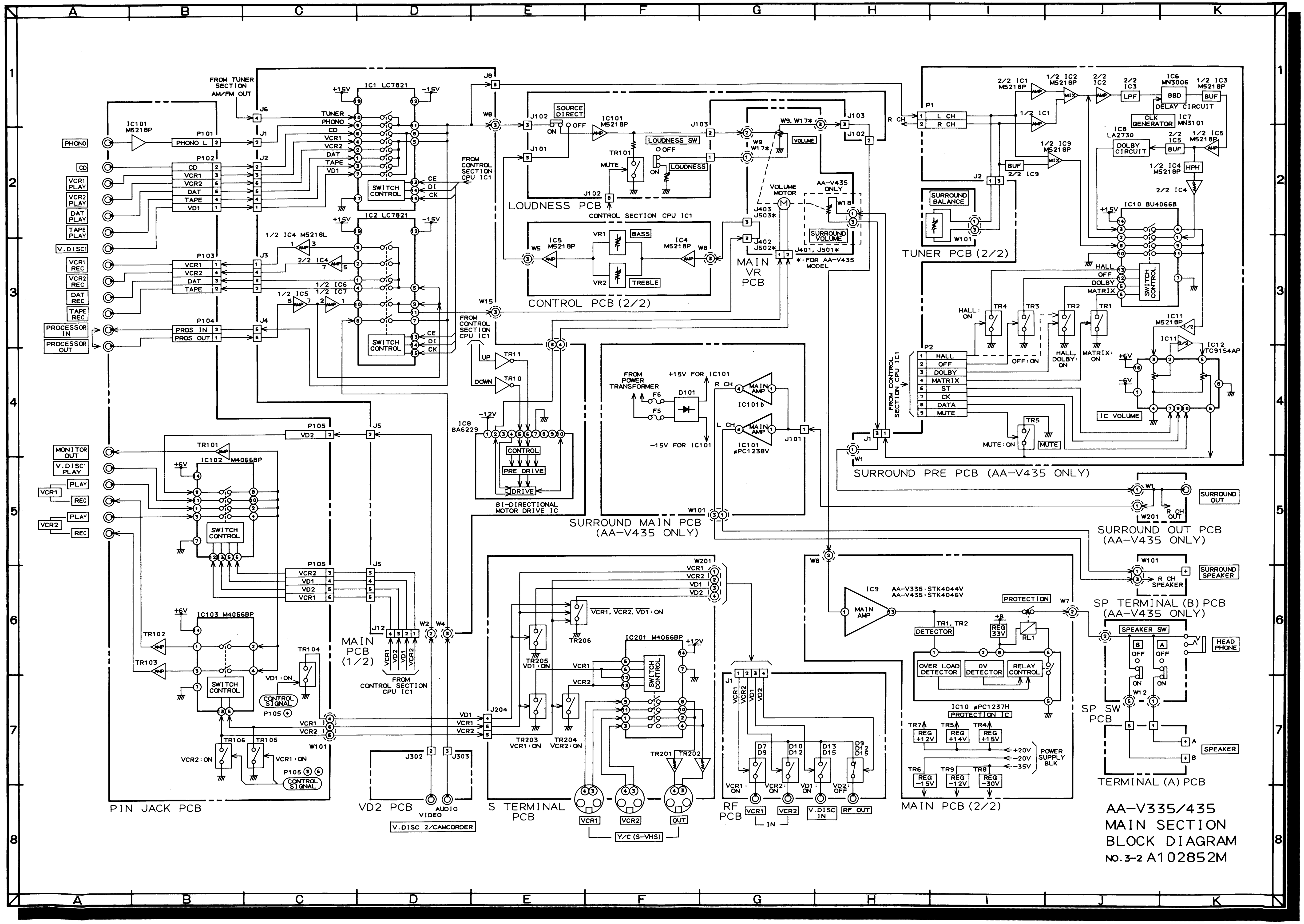
TUNER PCB A1027A503A


E C B
2SA1317
DTC144WS
E C B
2SC3383
S G D
2SK246

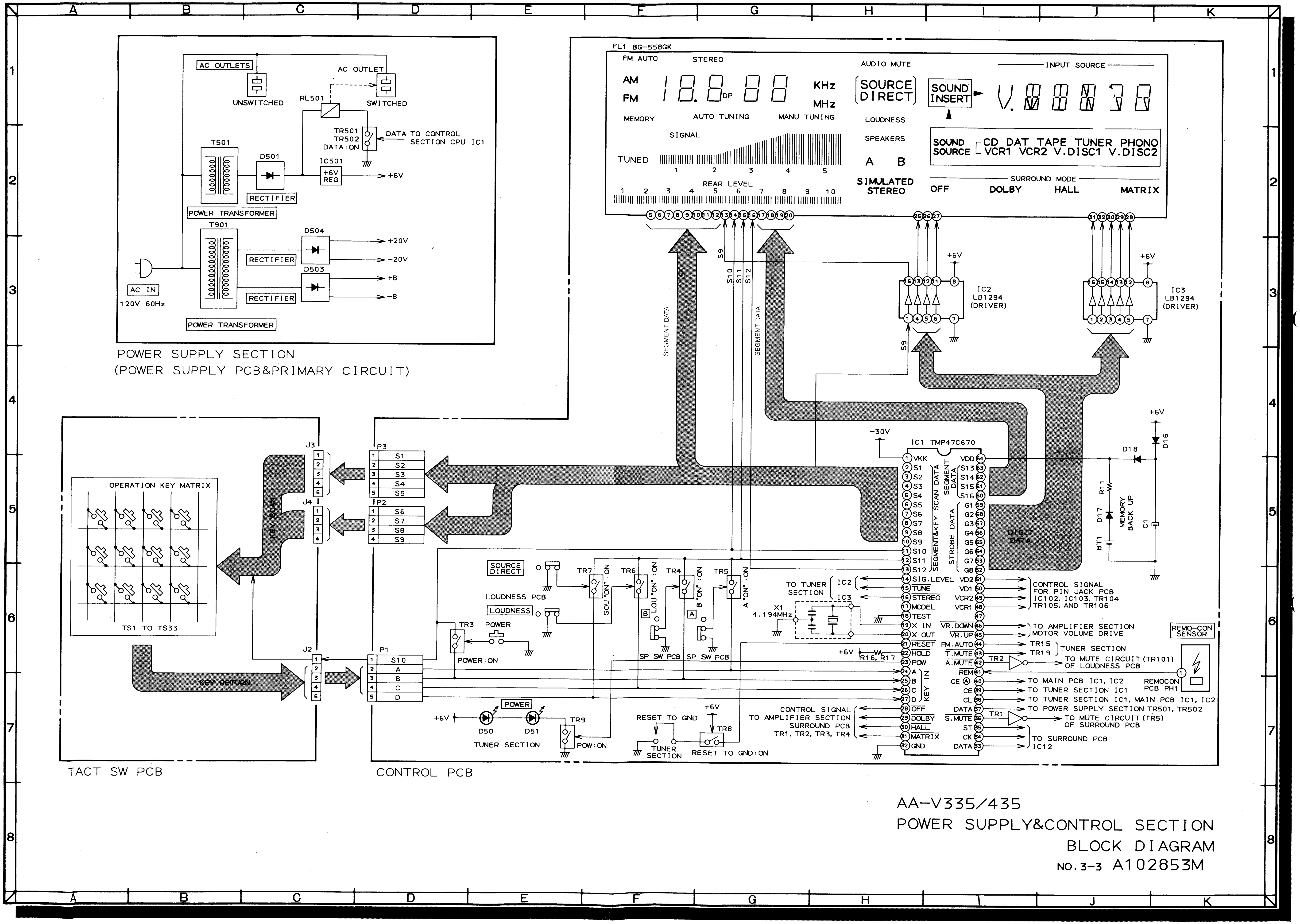

S D
FET
B
PNP TRANSISTOR
B
NPN TRANSISTOR


AM ANT IN
FM ANT IN
FM FRONT END
FM (+B)
FM TUNING
FM fc
fc+10.7MHz
RF MIX
IF OUT
FM VCO
BT VT
F, OUT (OSC)
FM fc+10.7MHz
TUNING CONTROL VOLTAGE
TR1, TR2
LPF
IC1 LM7001
NC
SYC
X IN
X OUT
X1 7.2MHz
C1
C2
FM IN
AM IN
REFERENCE DIVIDER
PHASE DETECTOR CHARGE PUNA
DIVIDER
SHIFT REGISTER LATCH
BO1
BO2
BO3
VDD1
VDD2
VSS
+14V
CE
CL
DATA
C5
J1
FROM CONTROL SECTION CPU IC1
TUNER PCB
MW/LW TUNING
AM fc
AM fc+450KHz
T3
MW/LW VCO
T7, T7A
IF COIL
IF FILTER
FL1
AMP
FL2
TR10
10.7MHz
FM
IC2 LA1265
BUFFER
REG
RF
AGC
AM-IF
S.METER
OSC
MIX
DET
LEVEL DIT
SD ADJ
LED DRIVER
FM-IF
Q.D
GND
VCC
S CURVE
POST AMP
DETECTOR COILS
T5, T6
TUNE
J1 ④
J1 ②
AUTO
MONO:ON
TR15
D10
D8
AM:ON
TR14
AM
TR13
FM:ON
TR3
TR4
AM:ON
AM (+B)
D2
FM (+B)
VR2
IC3 μPC1235C
C58
STEREO
VCO 76KHz
PHASE LOCK DETECTOR
STEREO SW LAMP DRIVER
ST-MON SW VCO.STOP SW
PILOT PRESENCE DETECTOR
76KHz TO 38KHz DIVIDER
38KHz TO 19KHz DIVIDER
PRE AMP
NF AMP
STEREO DEMODULATOR
LCH POST AMP
RCH POST AMP
FL6
FL7
TR17
MUTE:ON
TR16
MUTE:ON
MUTE:OFF
TR18, TR19
MUTE
J1 ③
P1
R OUT
L OUT
TO AMPLIFIER SECTION
A B C D E F G H I J K
1 2 3 4 5 6 7 8

AA-V335/435
TUNER SECTION
BLOCK DIAGRAM
NO.3-1 A102851M


A
B
C
D
E
F
G
H
I
J
K
1
2
3
4
5
6
7
8
PHONO
CD
VCR1 PLAY
VCR2 PLAY
DAT PLAY
TAPE PLAY
V.DISC1
VCR1 REC
VCR2 REC
DAT REC
TAPE REC
PROCESSOR IN
PROCESSOR OUT
MONITOR OUT
V.DISC1 PLAY
VCR1
PLAY
REC
VCR2
PLAY
REC
IC101 M5218P
P101
PHONO L
P102
CD
VCR1
VCR2
DAT
TAPE
VD1
P103
P104
PROS IN
PROS OUT
FROM TUNER SECTION AM/FM OUT
J6
J1
J2
J3
J4
IC1 LC7821
IC2 LC7821
+15V
-15V
TUNER
PHONO
SWITCH CONTROL
CE
DI
CK
FROM CONTROL SECTION CPU IC1
1/2 IC4 M5218L
2/2 IC4
1/2 IC5
1/2 IC6
1/2 IC7
J8
W8
W15
J5
P105
VD2
TR101
IC102 M4066BP
+6V
IC103 M4066BP
TR102
TR103
TR104
VD1: ON
CONTROL SIGNAL
P105 ④
TR106
TR105
VCR2: ON
VCR1: ON
P105 ③ ⑥
W101
PIN JACK PCB
MAIN PCB (1/2)
J12
FROM CONTROL SECTION CPU IC1
W2
W4
J302
J303
VD2 PCB
VIDEO
AUDIO
V.DISC 2/CAMCORDER
SOURCE DIRECT
J102
J101
ON
OFF
IC101 M5218P
LOUDNESS SW
TR101
MUTE
LOUDNESS
J103
J102
LOUDNESS PCB
CONTROL SECTION CPU IC1
IC5 M5218P
VR1
BASS
IC4 M5218P
VR2
TREBLE
W5
CONTROL PCB (2/2)
W9, W17*
VOLUME
VOLUME MOTOR
J403 J503*
J402 J502*
J401, J501*
AA-V435 ONLY
W18
SURROUND VOLUME
*: FOR AA-V435 MODEL
MAIN VR PCB
UP
DOWN
TR11
TR10
-12V
IC8 BA6229
CONTROL
PRE DRIVE
DRIVE
BI-DIRECTIONAL MOTOR DRIVE IC
FROM POWER TRANSFORMER
+15V FOR IC101
-15V FOR IC101
F6
F5
D101
R CH
L CH
MAIN AMP
IC101b
IC101 μPC1238V
J101
W101
SURROUND MAIN PCB (AA-V435 ONLY)
P1
L CH
R CH
2/2 IC1 M5218P
1/2 IC2 M5218P
2/2 IC2
2/2 IC3
IC6 MN3006
1/2 IC3 M5218P
LPF
BBD
BUF
DELAY CIRCUIT
CLK GENERATOR
IC7 MN3101
IC8 LA2730
DOLBY CIRCUIT
2/2 IC5
1/2 IC5 M5218P
1/2 IC9 M5218P
2/2 IC9
1/2 IC4 M5218P
HPH
2/2 IC4
MIX
J2
SURROUND BALANCE
W101
TUNER PCB (2/2)
IC10 BU4066B
HALL
OFF
DOLBY
MATRIX
SWITCH CONTROL
TR4
TR3
TR2
TR1
HALL: ON
OFF: ON
HALL, DOLBY: ON
MATRIX: ON
IC11 M5218P
IC12 TC9154AP
P2
ST
CK
DATA
MUTE
FROM CONTROL SECTION CPU IC1
IC VOLUME
TR5
MUTE: ON
J1
W1
SURROUND PRE PCB (AA-V435 ONLY)
W201
SURROUND OUT
R CH OUT
SURROUND OUT PCB (AA-V435 ONLY)
SURROUND SPEAKER
R CH SPEAKER
SP TERMINAL (B) PCB (AA-V435 ONLY)
W201
VCR1
VCR2
VD1
VD2
VCR1, VCR2, VD1: ON
TR206
TR205 VD1: ON
IC201 M4066BP
+12V
J204
TR203 VCR1: ON
TR204 VCR2: ON
TR201
TR202
S TERMINAL PCB
Y/C (S-VHS)
OUT
D7 D9
D10 D12
D13 D15
D9 D12 D15
VCR1: ON
VCR2: ON
VD1: ON
VD2: OFF
RF PCB
IN
V.DISC IN
RF OUT
IC9
AA-V335: STK4044V
AA-V435: STK4046V
MAIN AMP
PROTECTION
W7
TR1, TR2
DETECTOR
+B
REG 33V
RL1
OVER LOAD DETECTOR
0V DETECTOR
RELAY CONTROL
IC10 μPC1237H
PROTECTION IC
TR7
TR5
TR4
REG +12V
REG +14V
REG +15V
TR6
TR9
TR8
REG -15V
REG -12V
REG -30V
+20V
-20V
-35V
POWER SUPPLY BLK
MAIN PCB (2/2)
SPEAKER SW
OFF
ON
W12
HEAD PHONE
SP SW PCB
SPEAKER
TERMINAL (A) PCB

AA-V335/435
MAIN SECTION
BLOCK DIAGRAM
NO.3-2 A102852M


A B C D E F G H I J K
1 2 3 4 5 6 7 8
AC OUTLETS
UNSWITCHED
AC OUTLET
SWITCHED
RL501
TR501
TR502
DATA: ON
DATA TO CONTROL SECTION CPU IC1
T501
D501
IC501
+6V REG
+6V
RECTIFIER
POWER TRANSFORMER
T901
D504
D503
+20V
−20V
+B
−B
AC IN
120V 60Hz
POWER SUPPLY SECTION
(POWER SUPPLY PCB&PRIMARY CIRCUIT)
FL1 BG-558GK
FM AUTO
STEREO
AM
FM
18.8.88
DP
KHz
MHz
MEMORY
AUTO TUNING
MANU TUNING
SIGNAL
TUNED
1 2 3 4 5
REAR LEVEL
1 2 3 4 5 6 7 8 9 10
AUDIO MUTE
SOURCE DIRECT
SOUND INSERT
INPUT SOURCE
LOUDNESS
SPEAKERS
A B
SIMULATED STEREO
SOUND SOURCE
CD DAT TAPE TUNER PHONO
VCR1 VCR2 V.DISC1 V.DISC2
SURROUND MODE
OFF
DOLBY
HALL
MATRIX
S9
S10
S11
S12
SEGMENT DATA
IC2
LB1294
(DRIVER)
IC3
LB1294
(DRIVER)
+6V
DIGIT DATA
J3
P3
S1 S2 S3 S4 S5
J4
P2
S6 S7 S8 S9
KEY SCAN
OPERATION KEY MATRIX
TS1 TO TS33
KEY RETURN
J2
P1
S10 A B C D
TACT SW PCB
CONTROL PCB
SOURCE DIRECT
LOUDNESS PCB
LOUDNESS
POWER
TR3
POWER: ON
TR7
TR6
TR4
TR5
SOU "ON": ON
LOU "ON": ON
B "ON": ON
A "ON": ON
SP SW PCB
+6V
D50
D51
TUNER SECTION
TR9
POW: ON
RESET TO GND
TUNER SECTION
TR8
RESET TO GND: ON
CONTROL SIGNAL TO AMPLIFIER SECTION SURROUND PCB TR1, TR2, TR3, TR4
TO TUNER SECTION
IC2
IC3
X1
4.194MHz
R16, R17
−30V
IC1 TMP47C670
VKK S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 SIG.LEVEL TUNE STEREO MODEL TEST X IN X OUT RESET HOLD POW A B C D OFF DOLBY HALL MATRIX GND
VDD S13 S14 S15 S16 G1 G2 G3 G4 G5 G6 G7 G8 VD2 VD1 VCR2 VCR1 VR.DOWN VR.UP FM.AUTO T.MUTE A.MUTE REM CE CE CL DATA S.MUTE ST CK DATA
SEGMENT&KEY SCAN DATA
SEGMENT DATA
STROBE DATA
KEY IN
CONTROL SIGNAL FOR PIN JACK PCB IC102, IC103, TR104 TR105, AND TR106
TO AMPLIFIER SECTION MOTOR VOLUME DRIVE
TR15
TR19
TUNER SECTION
TR2
TO MUTE CIRCUIT (TR101) OF LOUDNESS PCB
TO MAIN PCB IC1, IC2
TO TUNER SECTION IC1
TO TUNER SECTION IC1, MAIN PCB IC1, IC2
TO POWER SUPPLY SECTION TR501, TR502
TR1
TO MUTE CIRCUIT (TR5) OF SURROUND PCB
TO SURROUND PCB IC12
REMO-CON SENSOR
REMOCON PCB PH1
D18
D16
R11
D17
MEMORY BACK UP
C1
BT1

AA-V335/435

POWER SUPPLY&CONTROL SECTION

BLOCK DIAGRAM

NO.3-3 A102853M